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PUBLIC INVESTMENT AND CAPITAL FORMATION

**A STUDY OF PUBLIC AND PRIVATE
INVESTMENT OUTLAY, CANADA
1926-1941**

Can. **DOMINION-PROVINCIAL CONFERENCE
ON RECONSTRUCTION**

1945/46

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FOREWORD

This factual study has been prepared for the Dominion-Provincial Conference on Reconstruction to show: for the period 1926-1941, (1) the volume of all public investment and maintenance expenditures, including outlay on public works projects, development and conservation of natural resources, purchases of durable goods and net changes in government holdings of inventories and foreign assets, (2) the role played by public investment as a segment of total gross investment in Canada; for selected years in this period, (3) the types of public investment and maintenance expenditures, (4) the division among the Dominion Government, the various provincial governments and municipal governments and (5) the importance of public investment as a segment in total public expenditures. In addition to the direct expenditures by governments, investment and maintenance outlay by those distinct bodies known as public utilities are given separately.

Gross investment and gross capital formation, both public and private, have been estimated to provide a background to public investment in order that the part

played by the latter in the whole may be seen. A provincial breakdown of public investment data is given but, owing to the nature of the information, it was not possible to provide a regional breakdown of gross investment.

Much of the information on which this study has been based was obtained from government departments, Dominion, provincial and municipal, public utility corporations and private companies, whose generous assistance made a large contribution to the computations. In a number of instances, surveys and special investigations were conducted to fill gaps in original statistical material and to obtain sufficient factual information to make reliable estimates possible. Valuable assistance, in the provision of published and unpublished data, was given by many of the branches of the Dominion Bureau of Statistics.

This study was prepared under the direction of O. J. Firestone and M. C. Urquhart of the Department of Reconstruction.


OTTAWA, CANADA.

August 6, 1945.

PART I

CONCEPTS, DEFINITIONS AND MEASUREMENT

1. Purpose of Measuring Capital Formation and Investment
2. Concepts and Definitions of Capital Formation and Investment
3. Measurement of Capital Formation and Investment
4. Concept and Definition of Public Investment
5. Measurement of Public Investment in Durable Physical Assets



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PART I

1. PURPOSE OF MEASURING CAPITAL FORMATION AND INVESTMENT

Capital formation, in the broadest sense, comprises that part of the current flow of goods and services devoted to the provision of all those tangible or intangible capacities (which are the results of human endeavour) able to render economic service in the future. Depending on the purpose for which a measure of capital formation is to be used, the range of definition may vary from a very narrow one, perhaps including only the production of selected durable assets, to one including changes in human abilities, in productive techniques and scientific knowledge and even goodwill. Usually the definition selected falls somewhere between the two extremes.

Capital is the stock of productive assets in existence at any time. Capital formation is the *flow* which either augments or diminishes this stock; since it is a flow, its measurement is made for a period of time, usually one year.

If a comprehensive measurement of total capital formation is to be obtained, it must be made in terms of money, the common measure of all economic values and flows. For some purposes it will be measured in terms of current prices; for others it may be measured in terms of dollars of constant value. As capital has value only to the extent that it is used to create productive goods and services over a period of time, its true valuation depends, in considerable measure, on the economic prosperity of the country. However, the items entering into capital formation are usually valued at cost, that being equal to the value of the economic goods and services used in production.

Measurement of capital formation is of importance because:

(a) The productive capacity of the economy depends in large measure on the capital equipment, skills, technical knowledge and the energy and vigour of the people available for use in the productive processes. The addition of capital to the already existing stock increases the productive capacity of the economy for future periods; it is important that capital formation be maintained in order that economic advancement be continued. Further, as new techniques or processes are developed, the only way they can be introduced may be through large capital expenditures.

(b) A measure of capital formation is useful in analysis of the effects of various types of expenditure on the current level of economic activity in the country as a whole. Of the goods and services produced, part is used to satisfy the current desires and needs of the consumers within the economy, part is used to add to those facilities capable of rendering future economic service. In the production of the goods and services, income to the full value of the production accrues to wage-earners, to owners of capital or to the operators of businesses. The income may accrue to private individuals, to incorporated or unincorporated businesses, or to governments. If economic activity is to be maintained, total expenditure must be sufficiently high to absorb all production.

The amounts sold to consumers, which covers the first part of the disposition of commodities noted above,

depends very largely upon the amount of disposable consumer income. If consumer income is high a proportion of it will be spent on consumer goods and services and the remainder will be saved; if consumer income is low another (higher) proportion will be spent. But at any given income level the consumption outlay will not vary greatly from one year to the next.

On the other hand, amounts of capital investment are not nearly as closely related to current income. The amount of current private physical investment depends very largely on what future prospects appear to be, and in the minds of investors future prospects are not always connected with current economic activity. The level of public investment is guided by other factors including the need for public facilities and services and the requirements of fiscal policy. If at any time persons, businesses or governments decide to lower expenditure on investment, it will mean reduced employment in the investment goods industries, reduced income to their employees and owners, and reduced expenditures on consumption out of the lower incomes. Capital investment is, therefore, an important dynamic factor in the determination of the level of economic activity in the country.

Capital formation is defined (page 11) herein to include only the increment or decrement of domestic capital goods. In addition Canadians may invest or disinvest in foreign assets. Through the sale of services and commodities to other countries Canadians receive income from abroad. Through the purchase of goods and services from abroad they dispose of part of their income. Foreign net investment is the difference between these receipts and expenditures. To the extent that net foreign assets increase, more goods and services are taken off the Canadian market than are added to it. To the extent that foreign assets decrease, the converse is true. The addition to domestic capital formation of net foreign investment or disinvestment provides another quantity called *gross investment*.

In the private sector of the economy a part of income is spent on consumer commodities, part on payment of taxes and the remainder is saved. As expenditure on capital goods is not considered a part of outlay from current income for the economy as a whole, it must be made out of savings. In the private sector of the economy such capital investment is a direct offset to savings as defined above. However, in the public sector of the economy, total expenditure may exceed total revenue by less than the outlay on capital goods, and at least part of the capital outlay may be made from receipts of taxes that have been collected from the current income of individuals; to the degree that this occurs, government investment is not an offset to private savings. Or, on the other hand, the total government expenditures may exceed revenue by more than the amount of investment expenditures, in which case savings offsets of governments exceed government investment. The total gross offset to savings is, therefore, gross private capital investment plus the excess of government expenditures over government revenue.

2. CONCEPTS AND DEFINITIONS OF CAPITAL FORMATION AND INVESTMENT

Physical capital is of two kinds. The first, which includes durable buildings, engineering works, machinery and equipment, is used in substantially the same form for an extended period of time. It does not undergo physical transformation in the period in which it is being used and it does not become a physical part of the final commodity produced. This durable plant and equipment involves a major expenditure at the time of acquisition, but further capital outlay is small until replacement becomes necessary. Replacement necessitates another major outlay.

Each year through productive use, or merely from the passing of time, some part of the productive value of the capital is used up; depreciation allowances are an attempt to measure the capital used up or consumed. For the country as a whole the actual replacement in any given year may vary substantially from the productive capacity consumed, being either above it when conditions are good or below it when conditions are poor, because, owing to the durable nature of the commodities, it is possible to accelerate or postpone the time at which the replacement may be made, depending upon business conditions. Net new additions not replacing former capital equipment may be varied in the same manner.

Since the time at which additions or replacements of this durable capital may be made is highly variable, it is desirable to obtain a measure of the total flow of goods whether it be for net addition purposes or for replacement of previously existing assets. No allowance is made for the capital consumed in the year. This gives a measure of the gross flow of capital goods. If a net figure of the amount of capital added is desired, the

amount of capital consumed must be subtracted from the gross figure. Although accounting practice is such that depreciation charges are an arbitrary measure, capital consumption is usually measured by these charges.

The second type of capital comprises stocks of goods which are necessary for the productive processes but which are not yet in the physical form or in the location in which they will finally be used. They include such things as inventories of raw materials, work-in-progress and finished consumer and producer goods.

These stocks of commodities change their physical form substantially as they provide their service. They may disappear entirely as in the case of fuel or they may become a physical part of another commodity before it is ready for final use. Some of these inventories are finished goods on the shelves of consumers, and will later be used for personal consumption. The remainder are in the hands of producers.

Commodities are continually being added to and taken out of inventories; they are thus different from durable plant and equipment. If the total flow of commodities into inventories were measured, it would amount to the entire production of the period. There would be, of course, also the offsetting flow which would represent consumption by individuals for personal use or by business for further production. The actual inventories might be turned over several times in a year. Therefore, it is not desirable to measure the total flows into and out of stocks but rather to take the net figure calculated by subtracting the amounts consumed from the amounts produced. Hence only a net figure for inventory change is calculated.

SCHEDULE A. RANGE OF DEFINITION OF GROSS CAPITAL FORMATION AND GROSS INVESTMENT

Gross Additions to Plant and Equipment	Net Changes in Stocks	Net Changes in International Claims	Investment in intangible capacities
<p>(1) All fixed durable property whether in the hands of individuals or governments. (a) All property used for business purposes. (b) All residential property.</p> <p>(2) Machinery and equipment in the hands of producers, including governments.</p>	<p>(1) Fuel, raw materials of all kinds in the hands of producers.</p> <p>(2) Work in progress in the hands of producers.</p> <p>(3) Finished goods for distribution in the hands of producers, and supplies.</p>	<p>(1) Claims in the form of cash or non-equity securities.</p> <p>(2) Ownership of foreign property held abroad.</p> <p>(3) Ownership of gold domestically held.</p>	<p>(1) Education, skills and health.</p> <p>(2) Accumulation of knowledge through research, exploration and experience.</p> <p>(3) Establishment of productive capacity by creating consumer wants and goodwill.</p>
<p>(3) Durable movable goods in the hands of consumer.</p>	<p>(4) Finished goods in the hands of consumers.</p>		

Items measured in this study.

In order to outline the various possible distinctions of capital formation and to delineate the measure in this study, Schedule A has been set up. It indicates the various items that might be included in total capital formation and the items which are measured in this study.

Plant and equipment (column 1) includes all those durable commodities in the hands of final users which are in the physical form and location or control in which they will finally be used. In the measurement of investment in plant and equipment only those items which are the result of productive economic effort are included; for instance, enhanced land value resulting from opening up of new territory is not covered. The gross addition to plant and equipment give gross capital formation of this kind of capital. Deduction of the amount of durable plant and equipment consumed in the productive activity of the year gives net capital formation.

The items are divided among producer durable and consumer durable commodities, the difference being not in the type of commodity produced but in its use. An automobile used for commercial purposes would be included with producer durables; one used by a family for pleasure would be included with consumer durables. All residential property is treated as a producer commodity.

Stocks (column 2) include all those raw materials, goods in process and finished commodities which have not an extended use in their existing form but which are necessary for the proper functioning of productive processes or for consumer use. They may be divided between: first, that which is in the hands of producers in the form of raw materials, including fuel and unprocessed commodities, in the process of transformation to another physical form, or in finished form; second, that which is in the hands of consumers in finished form but which has not yet yielded its consumer service. The net change in inventories gives capital formation in the form of stocks.

The net foreign balance (column 3) represents net balance of changes in the claims of residents of other countries against Canada and changes in the claims of residents of Canada against other countries. The computation of this item could be considered both net and gross also, if desired, since total current receipts from abroad can be regarded as an increase in claims on other countries and total current payments can be regarded as a diminution of claims against other countries. However, for the same reason that only net changes in inventories are included in capital formation, only the net difference between current foreign receipts and payments are included in gross investment. This means, in the case of a net increase in foreign investment, the excess of income received from abroad over income spent abroad, or in the case of a net decrease in foreign

investment the excess of income paid abroad over income received from abroad. Changes in domestic holdings of gold are included with foreign investment as gold is of value mainly insofar as it can be used to settle claims of foreign countries.

The remaining items that could be placed in capital formation are investment in those intangibles summarized in column 4. The production of these intangibles absorbs productive effort just as production of physical commodities does. It adds to the productiveness of the economy as much as physical commodities. But it is difficult to separate the part that is investment from that which is merely consumption. Education and training may be of value in increasing one's productive capacity; it is also of value in enabling one to enjoy the amenities of civilization. To distinguish between the two parts is impossible and perhaps even undesirable.

The criterion for selecting the items to be included in a figure of capital formation depends on the purpose for which it is to be used. As one of the main objects of this study is to provide material which will help in determining the effect of investment on the level of current economic activity, the items included have been restricted in number. The criterion of choice has been, in the main, to select only those items which have a dynamic force in the determination of the economic activity in the country. In addition some items have been left out because it is difficult to measure them. For these two reasons none of the intangibles is included; nor are purchases of consumer durables, such as furniture and automobiles, and changes in those inventories on the shelves of consumers. Exclusion of consumer durable commodities, which are similar to equipment of business in form, and which fluctuate in quantity much more widely than do consumer non-durables over the business cycle, is made because they bear a fairly definite dependent relationship to the amounts of disposable consumer income.

For this study the following definitions are adopted:

Gross Domestic Capital Formation is the gross addition to all finished durable physical commodities in the hands of producers, gross residential construction and the net changes in stocks in the hands of producers.

Gross Investment is gross domestic capital formation plus the net balance on international account.

Gross Savings Offsets is gross domestic capital formation of private business and separate government corporations plus the net current balance on international account, plus the excess of government expenditure over government revenue.

The items included in gross investment for purposes of this study are contained in the box in the upper left hand corner of Schedule A.

3. MEASUREMENT OF CAPITAL FORMATION AND INVESTMENT

Capital formation can be measured by observation of the flow of capital goods during a period of time, or by measuring the change in stocks between the beginning and end of the period.

The former method is more commonly used with the durable capital commodities. The flow may be measured either at the point of production, at the point of distribution or at the point at which it goes into the hands of the final user. Measurement at any of these places should give the same result if adjustments are made

for cost of distribution and for change in inventories. If the change in stock method is used to obtain gross investment in durable capital commodities, it would be necessary to adjust for the capital consumed during the year.

To measure investment in inventories, where only the net change in stocks is measured, the only practical method is to use the change in stock procedure in which stocks are measured at the beginning of the year and the end of the year, the difference showing the amount of capital formation.

For capital formation it is desirable to measure the change in the physical quantity of capital. If the flow method of measurement is used, using valuation at current prices, the figure obtained is the current value of the physical capital formation. If the change in stock method is used, it will not be sufficient to merely subtract book values at the beginning of the year from those at the end of the year, for much of the difference may be caused by changes in the valuation of the entire stock during the year. Revaluation is of particular importance in the case of inventories which may be completely turned over several times within the year; in these circumstances adjustments must be made to measure appropriately the current value of the physical change.

Usual business accounting practice is to charge to capital account those items of expenditure on durable assets not usually replaced annually; expenditures on items such as parts and repairs which are made on a much more regular basis are charged through maintenance accounts to operating expenses. However, as with the steam railways prior to 1940, expenditure on capital commodities frequently is charged to maintenance accounts. Re-allocation of expenditure to separate all major capital outlay from repair and maintenance work is desirable, but except in a few cases, available information is not adequate to allow substantial transfers.

Repair and maintenance expenditures, while necessary for efficient operation, may be varied, in the time at which they are carried out, to a lesser extent than are additions of capital. For this reason they have been

shown separately. It must be realized that since this separation is rather arbitrary, it does not entirely divide expenditure which can be accelerated or postponed from that which cannot be.

In this study capital formation, for most of the durable physical assets, has been obtained by measuring the flow either from producers or to final users. In a few instances measurement was made by obtaining changes in stocks, appropriately adjusted for charges to capital reserves. The changes of inventories were all made by taking changes in stocks rather than by subtracting the flow out of inventories from the flow into them. Net investment or disinvestment, on foreign account, is measured by the difference between total current receipts and total current payments.

Although its relative importance varies over the business cycle public investment comprises a comparatively large segment in total gross investment. Thus, like private investment, it has a significant income and employment creating effect. However, since the volume of public investment activity is guided by considerations somewhat different from those affecting the level of private investment activity, it attains special significance in economic analysis. In any broad appraisal of the importance of public investment for the national economy it is essential to know how important it is as a segment in total investment, where it takes place and what sectors of the economy it affects. The following sections outline the concept of public investment, discuss the range of possible definitions and set out the items of public investment measured in this study.

4. CONCEPT AND DEFINITION OF PUBLIC INVESTMENT

In Canada payments are made by governments for specific purposes to other governments, semi-public bodies, including public utility corporations, other government enterprises and certain educational and charitable institutions and private individuals and business organizations. The purposes for which such payments are made vary greatly but they can conveniently be classed into: public investment, mainly outlay for the creation of durable or capital goods and their maintenance; public services, mainly outlay for health, welfare, education, justice and protection; and transfer payments to other public or semi-public bodies to meet their financial obligations, and to private individuals and business organizations in the form of interest payments on government bonds, pensions, public acquisition of privately-owned land and so forth.

The importance of public expenditures lies not only in the fact that they provide needed public facilities and services but also in that they, like private expenditures, play an important part in determining the level of employment and income. While outlay on public investment and services has an immediate effect on the economy in that it provides payments either directly in the form of salaries and wages to individuals or indirectly in the form of orders for goods and services received from individuals or business organizations, transfer payments affect the level of income and employment only insofar as they reappear as expenditures by the recipients. Thus transfer payments do not contribute *directly* to current production of goods. Expenditures on public investment distinguish themselves from those on public services in that the former either create physical assets or contribute to their maintenance while the latter fill

current needs for government services and operations. Further, while, in some circumstances, public investment may not have a different effect on the level of employment and income than outlay on public services, it has, in the past, been subject to more substantial fluctuations than other government expenditures. Because of this irregularity, the concept of public investment has 'special significance for a study of capital formation and national income.

It is extremely difficult to select a definition of public investment that would serve all possible purposes owing to the different uses to which data on public investment are put. The definition used here is chosen from the particular point of view of the significance of public investment in national income determination. The range of definition of public investment is set out in a summary fashion in Schedule B and is discussed in some detail in the succeeding text.

DIRECT PUBLIC INVESTMENT

Direct public investment is defined herein as the total expenditure by governments on their own account for the purpose of either maintaining or expanding the productive equipment of the nation or improving the material fabric of the country and the net changes of government holdings in inventories and foreign assets.

Direct public investment falls naturally into three sections: (1) public investment in durable physical assets, (2) net changes of government holdings of inventories and (3) net changes of government holdings of foreign assets.

SCHEDULE B.—RANGE OF DEFINITION OF PUBLIC INVESTMENT

Direct public investment	Public investment in intangibles	Publicly-assisted private investment
<p>1. <i>Public investment in durable physical assets:</i></p> <p>(a) Investment by governments</p> <p>(b) Investment by publicly-owned public utilities</p> <p>2. <i>Net changes in government holdings of inventories:</i></p> <p>(a) Wheat inventories</p> <p>(b) Industrial inventories in war years</p> <p>3. <i>Net changes in government holdings of foreign assets:</i></p> <p>(a) Gold holdings</p> <p>(b) Other foreign assets, e.g., loans to foreign governments under Part II of the Export Credit Insurance Act, 1944.</p>	<p>1. <i>Public investment in human resources:</i></p> <p>(a) Education (technical, vocational, etc.)</p> <p>(b) Health and welfare</p> <p>2. <i>Scientific research:</i></p> <p>(a) Pure research and experimental work</p> <p>(b) Applied research.</p> <p>3. <i>Public extension services, e.g., provincial representatives giving advice to farmers to increase productivity of their land (seed practices) and demonstration work by Dominion Experimental Farms.</i></p>	<p>1. <i>Government credits and credit guarantees:</i></p> <p>(a) Government loans participating in private investment projects, e.g., National Housing Act, 1944 and Industrial Development Bank.</p> <p>(b) Government guarantees of domestic credits, e.g., publicly guaranteed railway bonds, guarantees to grain elevator co-operatives.</p> <p>(c) Government guarantees of foreign credits, e.g., public encouragement to export trade through Part I of the Export Credit Insurance Act, 1944.</p> <p>2. <i>Agricultural subsidies, e.g., herd improvement, freight and quarrying of limestone required for soil improvement</i></p> <p>3. <i>Tax concessions and special depreciation allowances encouraging private investment, e.g., provisions for special depreciation under Order-in-Council 8640/1944</i></p>

(1) PUBLIC INVESTMENT IN DURABLE PHYSICAL ASSETS

Public investment in durable physical assets is made by governments and by publicly-owned utilities.

(a) *Gross investment (new and replacement) and maintenance and repair expenditures by governments.* The following three major components can be distinguished:

(i) Expenditures for public works defined as government disbursements designed to create new physical assets or to maintain existing physical assets of a fixed nature involving structural changes or improvements; thus public works outlay comprises construction work of all kinds, on roads, bridges, harbour installations, buildings, grounds and all other structural work, done directly by public authorities or by private industry for public account. Public works expenditures are separated into actual construction and planning and administration expenses incurred in preparing for or carrying out public construction projects.

(ii) Expenditures on conservation and development of natural resources, defined as public outlay, designed to improve or maintain the material fabric of the country, including all those activities which contribute to reforestation, regrassing, geological and other surveys and related work. The expenditures are concerned with one or more of the natural resources, land, minerals, timber, wild life and water.

(iii) Expenditures on certain durable goods (machinery and equipment) required by public authorities in the performance of their functions (e.g., hospital and radio equipment, trucks and office furniture).

This selection has been made from the viewpoint of the effect that public investment has on income generation within the economy.¹ All the items included have been based on the criterion that they are the result of current economic activity in which income is created as, for example, in the case of constructing a public building. This undertaking will involve payments for wages and salaries, expenditures on materials and transportation services, and remuneration to contractors, builders, architects, engineers and realtors. Outlay on the transfer of property, such as the acquisition of a site, has not been included in the definition of public investment because productive effort is not involved. This approach is, hereafter, for convenience called the "national income" approach.

A distinction is made between expenditures on new projects and major improvements and on maintenance, repairs and alteration items. It is, however, important to bear in mind, for purposes of economic analysis, that, as past experience indicates, a major section of maintenance expenditures, particularly in the public field, is subject to postponement. This kind of outlay differs from expenditures for capital projects mainly in degree rather than in the nature of its behaviour, a factor significant for economic analysis.

¹ Public investment financed by borrowing would provide more stimulus to employment in the economy than a similar investment financed through taxation. The degree of difference of the stimulus provided would depend on how much the taxes imposed or government obligations sold to finance public investment would diminish savings.

New capital outlay can be classified into net additions to the existing supply of capital goods and replacement of capital goods. Since replacement expenditure have the same income-generating effect that outlay for net additions has, and since, in the past, they have behaved as irregularly as other capital expenditures, the volume of all new investment outlay, whether net additions or replacements, has been made the basis of this computation.

It is essential to distinguish the "national income" approach from that used in compiling statistics of public finance. The latter procedure confines the term public investment to outlay on capital account. The definition of capital and current expenditures, used in the public accounts, varies for different governments and different years. On the one hand, in many instances, items that do not conform to the definition of public investment have been included in capital account (e.g., capitalized direct relief expenditures); on the other hand, many truly investment items are charged to current account. The latter practice is particularly true for the years in which governments are in favourable fiscal positions. Further, capital outlay, as recorded in the public accounts, does not distinguish between income-generating expenditures and transfer payments, a consideration which attains significance when using public investment data for national income purposes.

This approach, hereafter called the "public finance" approach, does not provide a sufficiently reliable criterion for determining items entering into public investment. In this respect public accounting procedure differs somewhat from that of private concerns which use a more uniform accounting system. Expenditures of private concerns for items that have an extended life and are paid for in lump sums are generally charged to capital account, while expenditures necessary to keep the business in operation and are of a recurrent nature are charged to maintenance and repair account. This procedure has developed over a long period of years, mainly as a result (a) of income tax provisions setting out clearly the items which can be charged to capital and maintenance, and repair accounts and (b) of requirements of proper cost accounting for the purpose of measuring adequately the profitability of investment¹.

Since the classification of capital and current accounts adopted in the public accounts does not allow measurement of public investment as herein defined, a re-classification of expenditures is necessary. This involves that each item, whether charged to capital or current account, has to be examined in order to determine whether it has been made for the purpose of improving or maintaining physical assets. Only if

made for this purpose, would the outlay have an income-generating effect.

(b) *Gross investment (new and replacement) and maintenance and repair expenditures by publicly owned public utilities.* Such expenditures comprise the outlay of publicly-owned public utilities designed to create or maintain structures and machinery and equipment essential for the carrying out of their functions.

The term "public utilities" is used to designate enterprises, the operation of which is of special public interest owing to the fact that they produce or supply goods and services, the provision of which is considered indispensable to modern economic advancement. In many instances public utilities require the extensive use of public areas (e.g., an underground conduit system) which cannot be made available without the consent of a public authority and which frequently makes the duplication of services undesirable.

Public utilities are either publicly owned (Dominion, provincial and municipal authorities), privately owned and publicly regulated or privately owned and not subject to public regulations. If public utilities are publicly owned, they are distinct from public services and public investment in that the latter are administered as public functions and supported by taxation, while the former sell their goods and services to the general public for a rate. Public utility investment is usually considered as self-liquidating, a principle that cannot and perhaps should not always be applied to direct public investment of all kinds by governments. Privately-owned and regulated public utilities are distinguished from other private business by the fact that their goods and services are sold at prices which are fixed by public authorities through the process of public utility regulation rather than determined by laws of supply and demand in the open market. Only privately-owned and unregulated public utilities—which are almost non-existent in Canada—conduct operations somewhat similar to those of other private businesses, although the character of their operations usually separates them from a wide range of private endeavour.

Public utilities occupy a distinct role in the economy because their development and expansion require large capital outlay in permanent or long-lived structures and machinery and equipment. Since they are long-lived the time in which their replacement and improvement is carried out is extremely variable. Public investment in publicly-owned utilities is measured by the method described on page 109.

The types of publicly-owned public utilities and certain government corporations are shown by ownership and location in Schedule C.

¹It must be recognized that some deviation from the division between capital and repair accounts exists in private accounting procedure, in that, at times, some capital items are charged to repair and maintenance account. But much closer adherence to the practice is followed in private than in public accounting procedure. Government accounting practice does not set up depreciation or replacement reserves and make an allotment to them each year, but rather tends to follow the procedure of charging total replacement expenditures to current account.

SCHEDULE C.—LIST OF PUBLICLY-OWNED PUBLIC UTILITIES AND SPECIAL GOVERNMENT CORPORATIONS,¹ AS OF
DECEMBER 31, 1944

Dominion	Provinces	Municipalities
1. Steam and electric railways (C.N.R. including subsidiaries and jointly-owned companies and Hudson Bay Railway).	1. Steam railways (Ontario and British Columbia).	1. Steam railways (Greater Winnipeg Water District).
2. Trans-Canada Airlines.	2. Electric railways (Ontario).	2. Electric Railways (Ontario, Saskatchewan, Alberta, British Columbia).
3. Other transportation (Prince Edward Island Car Ferry and Terminals, Canadian Government Merchant Marine Ltd. and Canadian National (West Indies) Steamships Ltd.)	3. Electric Light and Power (Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan) ² .	3. Electric Light and Power (all Provinces).
4. Telegraph (Canadian National Telegraph).	4. Telephones (New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta).	4. Telephones (Quebec, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia).
5. Canadian Broadcasting Corporation.	5. Gas (Quebec and Manitoba).	5. Waterworks (all provinces) and other municipal public utilities (gas—Quebec, Ontario, Alberta, British Columbia and steam heating—Manitoba).
6. Bank of Canada.		

¹ Government corporations whose gross investment and maintenance expenditures were measured separately. Outlay by certain public utilities, such as the Dominion Telegraph system (Department of Public Works) and by other corporations or boards such as Research Enterprises Ltd., National Harbours Board, Dominion-owned grain elevators and Wartime Housing Limited, were included in direct investment by government.

² Regulatory commissions only in Alberta and British Columbia.

(2) NET CHANGES IN GOVERNMENT HOLDINGS OF
INVENTORIES.

Inventories are stocks of goods which are held for future use and are, therefore, not used for immediate consumption. They represent stored-up productive service, the end use of which is not yet determined. With regard to government holdings of inventories, two types can be distinguished depending on the kind of commodity held:

- (i) Finished goods, held for future disposal to the end-user, e.g., the holding, prior to sale, of wheat inventories;
- (ii) Unfinished goods, held pending the conversion into finished commodities, e.g., repair parts for government owned motor vehicles.

From year to year, government holdings of inventories will either remain constant, decline or increase.

In the first instance, no net addition to public investment has taken place because the amount of commodities available for immediate consumption has remained unchanged—in spite of the fact that perhaps part of the old stock has been disposed of and has been replaced by acquisition of an equivalent amount of new commodities.

In the second instance, the amount of commodities available for immediate use will be increased by reducing government holdings of stocks (e.g., wheat). The net change of government holdings of inventories will, therefore, take a negative form, a process known as *disinvestment*.

In the third instance, the amount of commodities available for immediate consumption or other invest-

ment will be reduced and government holdings of inventories will increase. The net change of inventories will take a positive form by raising the volume of total public investment.

From the above considerations, it becomes apparent that it is the net change in the volume of government holdings of inventories which must be included in figures of public investment, the principles of measurements being similar to those applied to measure net changes of private business inventories.

A country like Canada which produces substantial quantities of staple commodities may be forced to hold large stocks connected with fluctuations in export demand and variations in natural conditions. The measurement of net changes of inventories is of particular importance since it provides, in part, an explanation of the significant changes in the level of capital formation.

Net changes of government holdings of wheat and industrial inventories, the latter during war years only, are separated in the statistical measurement adopted in this study because they are important components in a direct public investment series. Other net changes of government holdings of inventories, e.g., repair parts, are insignificant in volume and their measurement has, therefore, been omitted in this study.

(a) *Wheat inventories*

Wheat is one of Canada's foremost staple commodities, both in terms of production and export to other countries. Changes in the demand for this commodity both domestically and abroad can have significant destabilizing effects on the Canadian economy. In some years wheat inventories increase representing payments

of income to the producers. In other years, they decline, absorbing spending power without, at the same time, yielding any income to the producers. The effects on income flows are thus of importance.

In Canada, substantial wheat inventories are held by the Dominion Government in certain periods usually connected with emergency situations such as low world prices or war. Statistical measurement of net changes of these inventories is based on the variation in physical volume as between the beginning and the end of the year, valued on the basis of the average price per bushel for the year.

(b) Industrial inventories in war years.

Government holdings of industrial inventories, only of minor significance during the war of 1914-1918, have assumed marked importance in the present war. This was due to the considerably increased war production in Canada beginning in 1940 and the creation of a number of Crown companies, some of which were formed for the sole purpose of acquiring stock piles of essential materials for use in war processes. The holding of large government-financed inventories was thought necessary in expediting war production.

Publicly-owned industrial inventories for war purposes might be classed as follows:

- (i) Inventories held by Crown companies engaged in the production or distribution of war materials, including optical glass and component parts of radio equipment, aircraft parts, machine tools and gauges, and stock piles of textiles and rubber.
- (ii) Inventories held by companies where the project was owned by the Crown but the company was operated in many cases as a subsidiary of a private concern, as for example, materials and components for the production of guns, tanks and self-propelled mounts.
- (iii) Inventories supplied by the Government to private companies as "free issue" to assist in the uninterrupted flow of production as was the case with component parts for aircraft known as "embodiment loan" and bodies and tires for military trucks. These government-furnished inventories were largely related to materials and components imported from the United States. They do not include, however, "free issue" items such as aircraft engines for the United Kingdom which were delivered to Canada from American companies under Lend-Lease arrangements.
- (iv) Inventories of materials and parts purchased by private companies from working capital advances made available by the Government through the Department of Munitions and Supply. Such was the practice with certain aircraft projects and gun programs. The title to these industrial inventories, though in private possession, was held by the Government.

The net changes of industrial inventories for each calendar year have been measured by the value of variations of the physical volume as between the beginning and the end of each year.

(3) NET CHANGES IN GOVERNMENT HOLDINGS OF FOREIGN ASSETS

Except in emergencies, when foreign exchange control may vest all holdings into the hands of the government, foreign assets are held either by private individuals and corporations or by public authorities. Government holdings of foreign assets can be classified as (a) holdings of gold and (b) holdings of other foreign assets.

(a) *Gold*.—Domestic gold can be considered as a foreign asset because of its free convertibility into foreign goods and services. Although the claim against another country is not created until domestic gold has actually been sold, the possibility of disposing of it at almost any time—except in special emergencies where the free sale of gold is prevented by economic warfare or world-wide currency disturbances—puts domestic gold holdings into a category similar to the holding of actual claims against other countries.

In Canada, export and import of monetary gold is government controlled¹. Net changes in government holdings of gold affect, therefore, the level of public investment. Account of such changes was taken by measuring variations in the physical volume valued at current prices (using a weighted average for changes of valuations during the year).

(b) *Other foreign assets*.—Other foreign assets comprise Canadian claims against other countries. They are increased by all the items which enter the credit side of the Canadian balance of payments and they are reduced by those items listed on the debit side. The repatriation of Canadian bonds from abroad, the accumulation of foreign exchange and the extension of credits have contributed to reducing the net indebtedness of Canada abroad, particularly in recent years². In measuring annual net changes of government holdings of foreign assets, this export of capital appears as a positive item in the gross investment series. Government loans floated abroad would be an offsetting item in the level of holdings of foreign assets but they have not played an important part in the Canadian balance of payments in the last few years.

The measurement of changes of government holdings of foreign assets is somewhat complicated by the fact that foreign assets are expressed in monetary terms and are, therefore, affected by changes in currency valuations. But such changes can be taken care of by adjustments for revaluations to arrive at the real net change which has taken place in a given year.

PUBLIC INVESTMENT IN INTANGIBLES

Since the definition of capital formation has been confined to the movement of commodities to and from the existing commodity stock, changes in intangible stock are not measured. This principle applied to public investment means the exclusion of expenditures

¹ Prior to 1935 government holdings of gold were in the form of central reserves. The Bank of Canada Act (Statutes of 1934, C.43) provided that gold reserves should be held by the newly established central bank. With the outbreak of war in 1939, all gold (public and private) was taken over by the Foreign Exchange Control Board. The requirement of a gold reserve was suspended.

² Direct loans, given to several European countries for reconstruction purposes by the Dominion Government, will further increase Canadian holdings of foreign claims. Another avenue for government loans is Part II of the Export Credits Insurance Act (1944, Chapter 39), which is to last three years. This Act is an attempt to meet the problems involved in facilitating and developing peacetime export trade. Accordingly, if the government of any other country requests the Government of Canada to do so, and undertakes to indemnify the Government of Canada against loss in this connection, the Government of Canada may guarantee the obligations of, make loans to, and purchase, acquire or guarantee any security issued by that government or its agencies to enable them to pay the purchase price of Canadian-produced goods exported or under contract for export to that country.

for the improvement of human resources such as education and health and welfare, the enrichment of knowledge through research and certain public extension services.

(1) PUBLIC INVESTMENT IN HUMAN RESOURCES

Public outlay on education, health and welfare can have an effect on the productive effort of a nation as important as, or even more important than, expenditures creating or maintaining durable physical assets. However, serious obstacles are encountered in any attempt to measure any addition to intangible stock that might have occurred in the course of a year.

In practice it is extremely difficult to separate in quantitative terms the producer qualities of education (e.g., an engineering course at a university) from consumer qualities of education (e.g., a general arts course designed to improve the social and cultural standing of a person in the community). But apart from this practical consideration, another reason makes advisable the omission of expenditures on education, health and welfare from measuring total public investment. For even if it were assumed that all public expenditures on education, health and welfare were made for productive purposes, past experience would seem to indicate that they have followed more closely the cyclical pattern of expenditures on consumer goods and services than on producer goods. Thus their inclusion in the former group rather than in the latter is warranted.

(2) SCIENTIFIC RESEARCH

Scientific research, in its broadest sense, is the purposeful seeking after new knowledge by careful consideration or study. It includes pure and applied research. Research in pure science is a search for general laws or principles, relating to matter, which can be verified by experiment under controlled conditions. Experimental work then is an inquiry into the truth of a particular theory developed to explain a natural law. The application of basic principles to specific problems is generally referred to as applied research, as contrasted with pure or fundamental research. An example of pure research would be the study of the principles of electronics, while the investigation of ways and means to use electronics in the home or factory would be applied research.¹

Expenditure on research has an immediate employment creating effect through the distribution of salary and wage payments and the purchase of machinery and equipment. The main effect of research expenditures, however, lies in the contribution they make to the advancement of knowledge. Thus they create intangible productive assets that may render economic service in the future. Because of the difficulties encountered in a quantitative appraisal of increases of intangible assets, they are not included in the measurement presented in this study.

(3) PUBLIC EXTENSION SERVICES

Expenditures on public extension services comprise outlay directed at improving the productiveness of the economy by advice or demonstration work. Examples of this kind of service are very common in the agricultural field, where public authorities have a direct interest in improving the productiveness of land and herds. A provincial representative advising farmers with regard to the improvement of their seed practices or demonstration work undertaken by Dominion Experimental Farms are both services supplied by public authorities contributing to increased knowledge in a particular field. As with outlay on scientific research these expenditures are not measured herein.

PUBLICLY-ASSISTED PRIVATE INVESTMENT

The public character of direct investment and investment in intangibles so far described is determined by the fact that the actual expenditures are made by governments and their origin is obvious when they enter the flow of commodities or services. There is, however, a third group of investment outlay which, though publicly originated or encouraged, is made by private individuals or organizations. This type of investment is included herein in the measurement of private capital and maintenance outlay since it is through private avenues that it will reach the income stream in the country. However, to round out the concept of public investment in its broadest sense², the following major groups of publicly-encouraged private investment may be borne in mind.

(1) GOVERNMENT CREDITS AND CREDIT GUARANTEES

(a) *Government loans participating in private investment projects.* Such loans have played a role of increasing importance during the 'thirties as exemplified by the provisions of the Dominion Housing Act of 1935 and the National Housing Acts of 1938 and 1944. In the main, these Acts provided loans to encourage private house-building activity by offering special facilities such as long periods of amortization and loans comprising a very substantial proportion of the total lending value of the project. Another example is the Industrial Development Bank, created in 1944 for the purpose of providing loans to private individuals and companies when they are not available from commercial institutions. These loans are designed to encourage new industrial investment.

(b) *Government guarantees of domestic credits.* Publicly guaranteed railway bonds were an important inducement to private entrepreneurs to venture into large scale railway building operations. Since the re-organization of the Canadian railway system and the creation of the Canadian National Railways, guarantees of this type

¹In Canada the greater part of public expenditure in the scientific field has been for the application of science to the needs of industry. The Dominion Government has been responsible for most of this outlay as provincial government expenditures have been comparatively small, although some of the provinces have assisted in financing research organizations such as the Ontario Research Foundation and the British Columbia Industrial and Scientific Research Council. Of course, financial assistance by provincial governments to universities have contributed to increased research activity in these institutions. The National Research Council has concentrated during the war years on problems directly concerned with furthering the war efforts and speeding up production in Canada. Research in agriculture, mining and forestry has been mainly directed toward the application of scientific knowledge to the conservation of natural resources, as for example the study of techniques to combat soil drifting, or to specific industrial problems such as the suitability of different species of wood in the manufacture of plywood. As a corollary to the work carried out in the laboratory there have been field experiments to test the results of scientific research under actual physical conditions. In agriculture, experiments on improved farming methods and other agricultural practices have been conducted on Dominion Experimental Farms, while new techniques in forest conservation and development have been tested on Forest Experiment Stations.

²The inclusion of publicly-assisted private investment in the definition of public investment has been adopted in a resolution passed by the International Public Works Committee, Geneva, July, 1938. (See *International Labour Review*, December, 1938, p. 755.)

have lost some of their importance. Other examples include the construction of grain elevators by wheat co-operatives in Saskatchewan and Manitoba, encouraged by financial guarantees of their respective provincial governments. Government guarantees were also given to lending institutions for loans to finance investment outlay such as provided in the Home Improvement Loans Guarantee Act of 1937, some features of which were incorporated in the National Housing Act of 1944.

(c) *Government guarantees of foreign credits.* Business transactions by private individuals and organizations with foreign countries may be guaranteed by the provisions of Part I of the Export Credit Insurance Act of 1944. Subject to certain conditions and by the payment of a small premium, exporters are insured against extensive risks involved in business dealings with other countries. By assuring Canadian industry of increased markets overseas, private investment in this country will be stimulated.

(2) AGRICULTURAL SUBSIDIES

The special interest which government authorities have in prosperous farming conditions is manifested by certain subsidies which are designed to improve the producing capacity of agriculture. Examples include subsidies given to improve the qualities of herds, and transportation subsidies for the movement of fertilizers for soil improvement.

5. MEASUREMENT OF PUBLIC INVESTMENT IN DURABLE PHYSICAL ASSETS

In separating public works into public construction, and planning and administration expenses and defining the former as construction work of all kinds done directly by public authorities or by private industry for public account, it was possible to obtain data that would be comparable with statistics on reported construction (public force account work and contract construction) compiled annually by the Construction Census Branch of the Dominion Bureau of Statistics.

Thus, it is possible to assess the importance of public construction in relation to total reported construction, an important consideration in any attempt to assess the significance of public investment activity on the economy. An added advantage is the possibility of estimating public construction on contract work as distinct from force account work, a separation which cannot be made with any degree of accuracy on the basis of the public accounts because of the varying accounting procedures followed by different governments.

For the purpose of providing as complete an estimate of public investment as possible, special allowance was made for preparatory planning, supervisory costs and administrative expenses.² Thus, the statistics compiled provide data on public construction which are comparable with over-all construction statistics in that they do not include items of a non-construction nature, and also data on public works which are complete in that they include items of a non-construction nature, essential for the carrying out of the projects concerned. These expenditures are measured herein because they have a

(3) TAX CONCESSIONS AND SPECIAL DEPRECIATION ENCOURAGING PRIVATE INVESTMENT

Special measures in the fiscal field can have a deciding influence on encouraging the level of private investment.¹ This was particularly apparent during the war years when the exigencies of war finance made a high level of taxation essential. Wartime tax concessions encouraging private investment took the forms of special war depreciation, concessions under the War Exchange Conservation Act, and special agreements. To encourage private investment outlay during the reconversion period, special depreciation provisions were proclaimed under Order in Council P.C. 8640 (1944). Another means of aiding private investment is by allowing companies to write back or carry forward losses over a three-year period in computing their tax.

Only the direct income-producing effect of public investment is measured herein. However, public investment may also have a further effect through encouraging the expansion of private investment by producing new opportunities for economic advancement. Such is the case when the construction of a new road in the little-developed northern parts of Canada makes the opening of a new mine possible. No attempt, however, is made to measure such effect.

direct income-creating effect. Transfer payments such as the purchase of land were omitted in this compilation. To arrive, for a given year, at public works expenditures including necessary transfer payments, only a slight upward adjustment is needed.³

In selecting the definition of expenditures on conservation and development of natural resources as public outlay designed to improve or maintain the material fabric of the country, certain duplications with statistics on public works were unavoidable. Some of the development projects are of a construction nature such as the construction of irrigation ditches, while others are of a non-construction nature as for example, reforestation. The solution adopted was to list under development expenditures all outlay falling under this category, while listing under public works, that part of development expenditures which was of a construction nature. In total public investment, this duplication was eliminated.

Expenditures on certain durable goods required by public authorities comprise the total outlay by the governments concerned on this account. However, certain machinery and equipment included in this group were used on public works as for example road machinery and other on development projects in the case of forest fire equipment. The solution adopted was to list total expenditures under machinery and equipment and to eliminate any duplications in total public investment by excluding expenditures on machinery and equipment used in public works and development projects.⁴

¹The equivalent of tax subsidies might be given by special provisions reducing tax liabilities of private firms.

²It was found that expenditures for preparatory plans of public works projects (including maintenance which requires very little prior planning) were approximately 3 per cent of total cost while supervisory costs and administrative expenses directly connected with the carrying-out of such projects were in the neighbourhood of 5 per cent.

³On the whole, transfer payments connected with public construction for the acquisition of sites, payments for right-of-way, etc., were minor and rarely exceeded 2 per cent of the total investment outlay in a given year. For individual projects, the proportion was considerably higher and usually was close to 10 per cent. However, these transfer payments were only those essential for the execution of the public works projects and did not include acquisition of capital projects such as the purchase of a privately-owned hydro plant or a railway by the government.

⁴Duplications caused by some overlapping among expenditures for public works, conservation and development of natural resources and machinery and equipment rarely exceeded 10 per cent of total public investment and were in most cases of the order of 5 per cent.

Conceptually, if procedure of measuring public investment were to be the same as for the private sector of the economy, depreciation on machinery and equipment used on the projects should be included as a charge against expenditures on public works and development and conservation of natural resources. Purchases of machinery and equipment used for such purposes could be taken to equal depreciation costs. If this procedure were adopted, there would be no need for eliminating duplications of machinery and equipment; duplications would then be reduced to those expenditures covered both in public works and conservation and development of natural resources. However, since the amounts involved were small and since an arbitrary charge would have been necessary in the absence of an indication of what an appropriate use charge would be, these charges have been allowed when construction and resources development work done on force account were computed separately but were removed when government purchases of machinery were added to construction and resource development work to get a total. In compiling the cost of contract work total payments made to contractors and builders were taken, thus allowing for depreciation charges included in the contract price.

The different components which make up gross investment and maintenance are shown under items 1 to 13 in the right section of Schedule D. They are set against components of total public expenditures on current and capital accounts as presented in the "Comparative Statistics of Public Finance", shown under

items 1 to 13 in the left section of Schedule D. In the lower right corner of the Schedule, under items 1 to 5, a reconciliation as between public investment and comparative public finance statistics is shown. The particular significance of the reconciliation table is that it provides information on expenditures on public services and transfer payments called herein "all other government expenditures." Thus it is possible to obtain for different periods and levels of government information on the proportion of total public expenditures going into public investment in durable physical assets.

Direct public investment outlay by governments has been computed on the basis of the actual expenditures made during the fiscal years nearest to December 31, irrespective of the source of funds used. If, for example, the Dominion Government provided a cost-sharing grant to a provincial government for the construction of a mining road, the total expenditure was listed as made by the provincial government. Total public expenditures on current and capital accounts which are shown at the net amount financed by the spending government in the Comparative Statistics of Public Finance (Table 10) had to be adjusted for transfer payments to arrive at the gross amount spent by the governments concerned. The latter figure is comparable with those shown for gross investment and maintenance. The difference in statistical application of the "Public Finance" approach and the "National Income" approach to estimating public investment is summarized in Schedule E.

SCHEDULE D.—COMPONENTS OF TOTAL PUBLIC EXPENDITURE, CAPITAL AND CURRENT ACCOUNTS,
ON THE BASIS OF COMPARATIVE STATISTICS OF PUBLIC FINANCE AND GROSS INVESTMENT
AND MAINTENANCE¹

Item No.	Comparative Public Finance Statistics	Item No.	Public Investment Statistics
	Public Welfare		
1	Health and hospital care	1	Streets, highways and bridges
2	Labour	2	Buildings and grounds
3	Relief	3	Water mains, sewers, dams and reservoirs
4	Old age pensions	4	Docks, wharves, rivers, canals, dredging, etc.,
5	Other	5	Other
6	Sub-total (Items 1 to 5)	6	Public construction (Items 1 to 5)
7	Education	7	Planning and administrative expenses
8	Highways, bridges and ferries	8	Public works (Items 6 and 7)
9	Agriculture	9	Natural Resources
10	Public domain	10	Machinery and equipment
11	Debt charges, net, excluding debt retirement	11	Sub-total (Items 8 to 10)
12	Other expenditures	12	Duplications
13	TOTAL EXPENDITURE, CURRENT AND CAPITAL ACCOUNTS	13	GROSS INVESTMENT AND MAINTENANCE (Item 11 less 12)
	Reconciliation with Public Accounts		
		1	Gross investment and maintenance
		2	All other government expenditures
		3	Total Public Expenditure through Government, Capital and Current Accounts (Items 1 and 2)
		4	Adjustment for inter-governmental transfer payments
		5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 3 and 4) ²

¹ Pattern used for provincial governments.

² As per Table 10 of Comparative Statistics of Public Finance.

SCHEDULE E.—DIFFERENCE IN STATISTICAL APPLICATION OF PUBLIC FINANCE APPROACH AND NATIONAL
INCOME APPROACH TO ESTIMATING PUBLIC INVESTMENT

Public Accounts Approach (Comparative statistics of public finance)	National Income Approach (Statistics of gross investment and maintenance)
1. Transfer payments which have no direct income creating effect are included in individual components, e.g., acquisition of land in "Highways, bridges and ferries".	1. Direct income creating expenditures listed only (excluding transfer payments).
2. Expenditures are classified as between capital and current accounts and do not distinguish as between gross investment and maintenance, and all other expenditures (public services and transfer payments).	2. Gross investment (new and replacement expenditures) and maintenance and repairs are computed separately and distinguished from all other government expenditures (public services and transfer payments).
3. Expenditures are shown at the net amount financed by the spending government, i.e., excluding transfer payments from other governments, e.g., share cost contributions (expenditures "by" government).	3. Expenditures are shown at the gross amount spent by the government concerned, irrespective of the source of funds used, i.e., after adjustment for transfer payments (expenditures "through" government).
4. Public investment expenditures other than highways, bridges and ferries and certain other transportation facilities not separated.	4. Public investment separated into <div> (a) public construction (by types) (b) natural resources, and (c) machinery and equipment </div>

PART II

FACTUAL SUMMARY

PART II

FACTUAL SUMMARY

The estimates of gross investment and public investment in the tables in Part III are divided into five sections, each designed to cover a different aspect of investment. To give a broad setting, in Section 1 estimates are first made of: gross capital formation and gross investment; repairs and maintenance; and gross savings offsets. These tables relate to all Canada and include both public and private investment in so far as they are measured in this study. They are intended to give overall totals and to show, separately, kinds of outlay which exhibit different patterns of behaviour; the choice of items has been made to serve this purpose. No tables, deflated to eliminate the effects of price changes, are included as a satisfactory index of the costs of most of the machinery and equipment was not available.

To show the division of investment expenditure among the major physical types and to provide a more detailed breakdown than that given in the first section, four tables giving: expenditure on new and repair construction; expenditure on new machinery, equipment and repairs; changes in inventories; and the items entering the international balance are given in Section 2.

The tables in Section 3 give investment in utilities. A division is made between those that are privately-owned and those publicly-owned with a further subdivision of the latter among Dominion, provincial and municipal.

The next group of tables, those in Section 4, present direct government investment expenditure on physical durable assets, and repair and maintenance outlay of governments. For comparative purposes, expenditure is divided among that undertaken by the Dominion, by the several provinces and by the municipalities. The breakdown within the tables shows the nature of the type of investment outlay made.

In Section 5 a small number of comparative tables provides a comparison between investment and repair and maintenance expenditure, and between total public and private outlay. The table of population in the various provinces from 1926 to 1941, on which the per capita tables of Section 4 are based, is also included.

It should be noted that differences of plus or minus one may occur where reconciliations are attempted in the material. This discrepancy is due to rounding.

A number of summary tables based on the more detailed statistical tables in Part III, with a few comments, follow:

As may be seen from Summary Table A, gross domestic capital formation suffered a very severe decline from 1929 and 1930 to 1933 and did not recover to former levels until the outbreak of war. If variations in farm

inventories, largely caused by variations in the grain crop, are removed, the decline following 1929 is even greater. The estimates of national income paid out to individuals, prepared for the Royal Commission on Dominion-Provincial Relations and the Dominion-Provincial Conference of 1941, show income paid out to individuals of \$4,719 million for 1929, \$2,632 million for 1933 and \$3,824 million for 1937. Gross domestic capital formation underwent a much greater relative change. The proportion of gross capital formation to income paid out to individuals was high in 1929 and 1937; in 1933 it was relatively insignificant.

Investment in durable physical assets shows a much more regular pattern over the business cycle than does that in the remainder of items. The peak for private investment in durable physical assets was reached in 1929; that for public was reached in 1930. The decline in total investment in these items continued from 1929 to 1933 and although they recovered somewhat, with a slight setback in 1938, the former levels were not reached until 1941.

Changes in inventories are the value of physical change; they do not include changes in inventory values associated with change in prices. The accumulation of business inventories continued until 1930 (although book value showed a decline in the latter year) after which they declined until 1933. Not until 1937 did inventory increases begin to play the same role as in the late 1920's and even then they were not as large until the present war. Variation between the pre-war year of greatest net increase, in 1928, and the greatest net decrease, in 1933, amounted to nearly \$300 million.

The pattern of change in business inventories is fairly regular. That of farm inventories is much less regular as changes are associated not only with business conditions but also with the size of crops, which depend on the vicissitudes of natural conditions.

It is of interest to notice the important part played by net foreign investment or disinvestment. The turning point of the period of prosperity in the late 1920's is featured by the very substantial amount of foreign disinvestment. While foreign payments and receipts nearly balanced in 1933, both fell drastically, the severe decline in payments received from abroad for goods and services being accompanied by an even greater decline in payments made abroad for goods and services. The improvement of foreign trade and particularly the net foreign balance, played an important part in the recovery of 1937. The change in the foreign investment, of over \$500 million between 1933 and 1937, is of nearly the same order of size as the change in investment in durable physical assets.

SUMMARY TABLE A
GROSS INVESTMENT AND DOMESTIC CAPITAL FORMATION, SELECTED YEARS, 1926-1941
(Millions of Dollars)

Item	1926	1929	1930	1933	1937	1941
Public investment in durable physical assets.....	154	313	339	108	246	562
Private investment in durable physical assets.....	622	951	769	198	570	857
Sub-total.....	776	1,264	1,108	306	816	1,419
Changes in business inventories (including grain in commercial channels).....	116	104	82	-132	24	258
Changes in farm inventories.....	66	-144	66	-29	-22	-39
Gross domestic capital formation.....	958	1,224	1,256	145	818	1,638
Net balance of international payments, current transactions.....	127	-311	-337	-2	180	491
Total Gross Investment.....	1,085	913	919	143	998	2,129

Gross domestic capital formation and gross investment do not include a substantial amount of outlay on repair and maintenance work. While the variations in maintenance outlay are not as wide as those in outlay on new durable physical assets, they are nevertheless substantial. In Summary Table B, repair and maintenance expenditure has been added to capital outlay

on durable physical assets. Addition of maintenance outlay increases the absolute (although not the relative), amount of variation and also increases the relative amounts of expenditure on durable physical assets as compared with that on inventories and on foreign net investment and disinvestment.

SUMMARY TABLE B
GROSS INVESTMENT AND REPAIRS AND MAINTENANCE, SELECTED YEARS, 1926-1941
(Millions of Dollars)

Item	1926	1929	1930	1933	1937	1941
Public investment in durable physical assets.....	297	499	518	221	395	722
Private investment in durable physical assets.....	862	1,235	1,013	341	801	1,134
Sub-total.....	1,159	1,734	1,531	562	1,196	1,856
Changes in business inventories (including grain in commercial channels).....	116	104	82	-132	24	258
Changes in farm inventories.....	66	-144	66	-29	-22	-39
Gross domestic capital formation and repair and maintenance....	1,341	1,694	1,679	401	1,198	2,075
Net balance of international payments, current transactions.....	127	-311	-337	-2	180	491
Total Gross Investment and Repair and Maintenance	1,468	1,383	1,342	399	1,378	2,566

Summary Tables A and B also show the division between public (including direct government and publicly-owned utilities) and private expenditure on durable physical assets, which include plant and equipment. Private expenditure reached its peak in 1929; public expenditure was greatest in 1930. The variation in private expenditure, with the exception of the year 1941, is wider than that on public expenditure. While public expenditure fell to approximately one-third the 1930 level by 1933 and recovered to about 75 per cent of the 1930 level by 1937, private investment declined

more drastically to nearly 20 per cent of the 1929 level but recovered to reach about 65 per cent of the 1929 level by 1937. With the beginning of war and the emphasis on the war-production program, public investment in plant expansion and defence construction had increased relatively much more than private investment.

Within the expenditure on durable physical assets, outlay on machinery and equipment fluctuated much more widely than does that on construction. This is associated with the relatively large amounts of engineering work undertaken by the government which helped

to stabilize construction somewhat and by the fact that most machinery and equipment expenditures are by private industry and both privately and publicly-owned utilities.

To eliminate the effects of the irregular changes in farm inventories noted above, the items in Summary Table A have been rearranged and regrouped in Summary Table C, to provide a total of gross investment excluding farm inventory changes. For analytic purposes, this measure of investment may be more significant than the total of all investment as farm inventory accumulation or decumulation has had a very different impact on the operations of the economy than have other inventory changes. Ordinarily an increase in farm inventories

does not mean cash income received by farmers whereas a decrease, which usually means cash sales, provides money more or less regarded as income. On the other hand the change in grain in commercial channels is included with the new total, since increases mean money payments provided to farmers and decreases are usually connected with exports which are reflected in the balance of international transactions. Gross investment excluding farm inventory changes shows a smaller decline than total gross investment between 1928 and 1929 and a larger decline between 1929 and 1930. It also provides a more regular and significant pattern, from the viewpoint of the effect of investment on economic activity, for all other years.

SUMMARY TABLE C

GROSS INVESTMENT, EXCLUDING FARM INVENTORIES, SELECTED YEARS 1926-1941

(Millions of Dollars)

ITEM	1926	1929	1930	1933	1937	1941
Total new construction and resource development (excluding durable equipment and duplications).....	483	761	707	206	450	723
Flow of producers' durable goods.....	293	503	401	100	366	696
Total Investment in Durable Physical Assets.....	776	1,264	1,108	306	816	1,419
Change in business inventories.....	123	92	91	-139	107	252
Total Domestic Capital Formation (excluding changes in grain in commercial channels and farm inventories).....	899	1,356	1,199	167	923	1,671
Change in grain in commercial channels.....	-7	12	-9	7	-83	6
Net balance of international payments, current transactions.....	127	-311	-337	-2	180	491
Total Gross Investment (excluding farm inventories).....	1,019	1,057	853	172	1,020	2,168
Reconciliation:						
Change in farm inventories.....	66	-144	66	-29	-22	-39
Gross Investment.....	1,085	913	919	143	998	2,129

Both publicly-owned and privately-owned utilities reached their peak of expenditure in 1929. Between 1929 and 1933 a decline in outlay of approximately 70 per cent was experienced, there being little difference between the relative decline in the privately-owned and publicly-owned utility expenditure. Recovery in 1937

carried total outlay to approximately half that of 1929, with a slightly greater revival being made by the publicly-owned group. During the period the emphasis on the type of utility expenditure changed, with railroads experiencing a relative decline, and telephones and electric utilities a relative increase in expenditure.

SUMMARY TABLE D

GROSS INVESTMENT AND MAINTENANCE, PUBLICLY AND PRIVATELY OWNED PUBLIC UTILITIES, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item	1926		1929		1930		1933		1937		1941	
	Val.	%	Val.	%	Val.	%	Val.	%	Val.	%	Val.	%
Privately-owned utilities.....	192.2	57.7	282.7	53.4	230.9	51.3	83.3	52.2	130.8	49.7	138.9	49.2
Publicly-owned utilities ¹	141.1	42.3	246.9	46.6	219.6	48.7	76.4	47.8	132.3	50.3	143.2	50.8
Total.....	333.3	100.0	529.6	100.0	450.5	100.0	159.7	100.0	263.1	100.0	282.1	100.0

¹ Including Hudson Bay Railway in all years.

The difference in behaviour between investment outlay of the publicly-owned public utilities and the direct government investment may be seen in Summary Table E. While the peak of the publicly-owned utility expenditure was reached in 1929, as was the case in private expenditure on plant and equipment, that of direct government expenditure was reached in 1930.

Although both types of outlay suffered a substantial decline to 1933 that of the utilities was much greater than that of the direct government, and public utility expenditure showed a smaller measure of recovery than did direct government. Except in the war years, public utility expenditure on machinery and equipment is of much greater relative importance than direct outlay by the Dominion Government.

SUMMARY TABLE E

GROSS INVESTMENT AND MAINTENANCE IN DURABLE PHYSICAL ASSETS, PUBLICLY OWNED PUBLIC UTILITIES AND GOVERNMENT ON OWN ACCOUNT, SELECTED YEARS, 1926-1941
(Millions of Dollars)

Item	1926		1929		1930		1933		1937		1941	
	Val.	%	Val.	%	Val.	%	Val.	%	Val.	%	Val.	%
Publicly-owned utilities ¹	138.0	46.5	241.0	48.4	216.0	41.7	76.4	34.5	132.3	33.6	143.2	19.8
Direct government.....	158.8	53.5	257.1	51.6	302.2	58.3	145.3	65.5	261.4	66.4	579.0	80.2
Total.....	296.8	100.0	498.1	100.0	518.2	100.0	221.7	100.0	393.7	100.0	722.2	100.0

¹Excludes Hudson Bay Railway, 1926, 1929 and 1930, as it is included with direct government.

Through the period from 1926 to 1941 there were substantial changes in the relative parts played by the various governments, Dominion, provincial and municipal. Of interest is: first, the substantial decline in Dominion Government expenditure following 1930 and a lack of recovery until the war years; second, the generally increasing importance of investment by provincial governments, the peak being attained in 1937; and third, the relative stability of investment and maintenance expenditures through the period by municipal governments.

The large expenditures of the Dominion Government up to 1930 is, in part, associated with the construction of the Hudson Bay Railway and the Welland Canal (expenditure on the Hudson Bay Railway is not included with the direct Dominion investment after 1930). At the same time, after the very substantial contraction between 1930 and 1933, provincial government road expenditure increased greatly, reaching a peak in 1937. The relative constancy of municipal government expenditure can be explained by the essential nature of the investment outlay. The summary of the outlay by the three governments is found in Summary Table F.

SUMMARY TABLE F

GROSS INVESTMENT AND MAINTENANCE, BY GOVERNMENTS, SELECTED YEARS, 1926-1941
(Millions of Dollars)

Item	1926		1929		1930		1933		1937		1941	
	Val.	%	Val.	%	Val.	%	Val.	%	Val.	%	Val.	%
Dominion Government.....	47.4	29.8	79.9	31.1	98.7	32.7	35.9	24.7	48.8	18.7	424.0	73.2
Provincial governments.....	49.8	31.4	90.7	35.3	114.5	37.9	47.5	32.7	148.3	56.7	89.2	15.4
Municipal governments.....	61.6	38.8	86.5	33.6	89.0	29.4	61.9	42.6	64.3	24.6	65.8	11.4
All governments.....	158.8	100.0	257.1	100.0	302.2	100.0	145.3	100.0	261.4	100.0	579.0	100.0

Government outlay is divided between investment expenditure and repairs and maintenance. As with private investment, new outlay shows greater relative decline from peak activity to depression. The constancy of repair and maintenance expenditure may again be explained by the essential nature of the outlay, certain expenditure being vital if substantial deteriora-

tion of physical property was not to be suffered. Between 1930 and 1933 repair expenditure fell by less than 40 per cent, new expenditure declined by more than 55 per cent; between 1933 and 1937 investment expenditure recovered to approximately twice the 1933 level while repair and maintenance increased by less than 50 per cent. These points may be seen in Summary Table G.

SUMMARY TABLE G
GROSS INVESTMENT AND MAINTENANCE, BY GOVERNMENTS, PURPOSE CLASSIFICATION,
SELECTED YEARS, 1926-1941
(Millions of Dollars)

Item	1926		1929		1930		1933		1937		1941	
	Val.	%	Val.	%	Val.	%	Val.	%	Val.	%	Val.	%
New investment, replacements and major improvements.....	97.5	61.4	167.5	65.1	208.0	68.8	88.1	60.6	183.5	70.2	500.5	86.4
Repairs, maintenance and alterations.....	61.3	38.6	89.6	34.9	94.2	31.2	57.2	39.4	77.9	29.8	78.5	13.6
Total.....	158.8	100.0	257.1	100.0	302.2	100.0	145.3	100.0	261.4	100.0	579.0	100.0

In 1937, per capita expenditures on gross investment and maintenance by all governments were highest in Nova Scotia, New Brunswick and British Columbia, varying between \$32 and \$38. Investment outlay in Ontario and Quebec was approximately the same, with a per capita expenditure of about \$25. Prince Edward Island ranked next with approximately \$21 while expenditure in the three Prairie Provinces was considerably below that of other provinces, varying between \$11 and

\$15. This comparatively great variation in the investment outlay among the different provinces is, to a large degree, due to the substantially reduced expenditures by provincial governments in Manitoba, Saskatchewan and Alberta in the 'thirties. Total investment and maintenance expenditures by all governments, their distribution and per capita figures, are shown in Summary Table H.

SUMMARY TABLE H
GROSS INVESTMENT AND MAINTENANCE, ALL GOVERNMENTS, BY PROVINCES, 1937

Province	Value \$ million	Distribution %	Per Capita \$
Prince Edward Island.....	1.9	0.7	20.65
Nova Scotia.....	19.1	7.3	34.83
New Brunswick.....	16.7	6.4	38.23
Quebec.....	76.2	29.2	24.25
Ontario.....	91.0	34.8	25.02
Manitoba.....	9.4	3.6	13.17
Saskatchewan.....	10.2	3.9	11.03
Alberta.....	12.0	4.6	15.45
British Columbia.....	24.4	9.3	32.14
Yukon and Northwest Territories.....	.6	.2	35.88
CANADA.....	261.5	100.0	23.70

Summary Table I indicates, with the exception of 1941, the growing relative importance of outlay on streets, highways and bridges. The proportion of total expenditure on this item increased from approximately 49 per cent in 1926 to 69 per cent in 1937. If other means of transportation had been included the tendency to increase would have been less, as the outlay of the

Dominion Government, in 1929 and 1930 in railways, canals and river work would have increased the transportation outlay substantially. This increase in highway and bridge expenditure is reflected in increased outlay by the provinces, noted in connection with Table F above.

SUMMARY TABLE I
PUBLIC CONSTRUCTION BY GOVERNMENTS, BY TYPES, SELECTED YEARS, 1926-1941
(Millions of Dollars)

Item	1926		1929		1930		1933		1937		1941	
	Val.	%	Val.	%	Val.	%	Val.	%	Val.	%	Val.	%
Streets, highways and bridges.....	60.5	49.4	100.2	49.6	118.9	49.9	60.6	53.9	144.6	69.5	92.5	26.1
Public buildings and other works...	61.9	50.6	101.7	50.4	119.3	50.1	51.9	46.1	63.6	30.5	262.2	73.9
Total.....	122.4	100.0	201.9	100.0	238.2	100.0	112.5	100.0	208.2	100.0	354.7	100.0

The major part of construction work undertaken by public authorities is carried out by contract. In 1937 almost two-thirds of the total expenditures of \$208 million was carried out by private contractors and businessmen. The work done by private contractors and builders usually comprises the construction of buildings, bridges, dams, docks, wharves and piers. A substantial amount of road work is also done by contract; only a few of the provinces rely on their

own engineering departments to do all work connected with the highway improvement within their respective territories; a much greater proportion of the maintenance work is done by governments directly than is the case with new projects. As the Summary Table J shows, in 1937, only about one-quarter of new construction work was carried out by public authorities with their own crews or day labourers while almost three-fifths of the repair work was managed directly.

SUMMARY TABLE J
PUBLIC CONSTRUCTION BY GOVERNMENTS, CONTRACT AND FORCE ACCOUNT WORK, 1937
(Millions of Dollars)

Item	New		Repairs		Total	
	Val.	%	Val.	%	Val.	%
Contract work	110.6	73.6	23.9	41.2	134.6	64.6
Force account work	39.6	26.4	34.1	58.8	73.7	35.4
Total.....	150.2	100.0	58.0	100.0	208.3	100.0

PART III

TABLES

SECTION 1. Gross Investment, Capital Formation and Savings Offsets

Tables 1—4

SECTION 2. Component Tables of Gross Investment and Capital Formation

Tables 5—8

SECTION 3. Public Utilities

Tables 9—14

SECTION 4. Public Investment by Governments

Tables 15—30

SECTION 5. Supplementary Tables

Tables 31—34

CANADA

TABLE 1a—GROSS DOMESTIC CAPITAL FORMATION AND GROSS INVESTMENT, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1927	1928	1929
	Public investment in durable physical assets				
1	Direct government.....	98	121	141	168
2	Utilities (railways, telephones, electric and power and other).....	56	84	95	145
3	Sub-total (Items 1 and 2).....	154	205	236	313
	Private investment in durable physical assets				
4	Residential, commercial, industrial and institutional.....	412	445	537	612
5	Agriculture, mines, woods operations.....	99	121	155	148
6	Utilities (railways, telephones, electric and power).....	111	118	144	191
7	Sub-total (Items 4 to 6).....	622	684	836	951
8	Total Investment in Durable Physical Assets (Items 3 and 7).....	776	889	1,072	1,264
9	Change in business inventories (excluding grain in commercial channels).....	123	118	150	92
10	Total Domestic Capital Formation (excluding changes in grain in commercial channels and farm inventories) (Items 8 and 9).....	899	1,007	1,222	1,356
11	Changes in grain in commercial channels and farm inventories.....	59	87	90	-132
12	Gross Domestic Capital Formation (Items 10 and 11).....	958	1,094	1,312	1,224
13	Net balance of international payments, current transactions.....	127	-10	-32	-311
14	TOTAL GROSS INVESTMENT (Items 12 and 13).....	1,085	1,084	1,280	913

TABLE 1b—DISTRIBUTION OF TOTAL INVESTMENT IN DURABLE PHYSICAL ASSETS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1927	1928	1929
	Public investment in durable physical assets				
1	Direct government.....	12.6	13.6	13.2	13.3
2	Utilities (railways, telephones, electric and power and other).....	7.2	9.5	8.8	11.5
3	Sub-total (Items 1 and 2).....	19.8	23.1	22.0	24.8
	Private investment in durable physical assets				
4	Residential, commercial, industrial and institutional.....	53.1	50.0	50.1	48.4
5	Agriculture, mines, woods operations.....	12.8	13.6	14.5	11.7
6	Utilities (railways, telephones, electric and power).....	14.3	13.3	13.4	15.1
7	Sub-total (Items 4 to 6).....	80.2	76.9	78.0	75.2
8	Total Investment in Physical Durable Assets (Items 3 and 7).....	100.0	100.0	100.0	100.0

CANADA

TABLE 1a—GROSS DOMESTIC CAPITAL FORMATION AND GROSS INVESTMENT, 1926-1941

(Millions of Dollars)

1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Item No.
208 131	172 98	119 33	88 20	110 19	126 31	125 40	184 62	167 62	167 53	326 64	501 61	1 2
339	270	152	108	129	157	165	246	229	220	390	562	3
485 123 161	323 54 122	188 36 60	138 29 31	192 45 39	226 62 36	291 74 41	409 95 66	344 100 60	345 97 57	473 117 50	662 133 62	4 5 6
769	499	284	198	276	324	406	570	504	499	640	857	7
1,108 91	769 —6	436 —73	306 —139	405 17	481 14	571 27	816 107	733 35	719 50	1,030 155	1,419 252	8 9
1,199 57	763 —22	363 33	167 —22	422 —1	495 13	598 —178	923 —105	768 118	769 166	1,185 169	1,671 —33	10 11
1,256 —337	741 —174	396 —96	145 —2	421 68	508 125	420 244	818 180	886 100	935 126	1,354 149	1,638 491	12 13
919	567	300	143	489	633	664	998	986	1,061	1,503	2,129	14

TABLE 1b—DISTRIBUTION OF TOTAL INVESTMENT IN DURABLE PHYSICAL ASSETS, 1926-1941

(Percentages)

[illegible]

CANADA

TABLE 1c—GROSS INVESTMENT, EXCLUDING FARM INVENTORIES, 1926-1941
(Millions of Dollars)

Item No.	Type of expenditure	1926	1927	1928	1929
1	Total new construction and resource development (excluding durable equipment and duplications)	483	529	649	761
2	Flow of producer's durable goods	293	360	423	503
3	Total Investment in Durable Physical Assets (Items 1 and 2)	776	889	1,072	1,264
4	Change in business inventories	123	118	150	92
5	Total Domestic Capital Formation (excluding changes in grain in commercial channels and farm inventories) (Items 3 and 4)	899	1,007	1,222	1,356
6	Change in grain in commercial channels	-7	36	85	12
7	Net balance of international payments, current transactions	127	-10	-32	-311
8	TOTAL GROSS INVESTMENT (excluding farm inventories) (Items 5 to 7)	1,019	1,033	1,275	1,057
9	Change in farm inventories	66	51	5	-144
10	Gross Investment (Items 8 and 9)	1,085	1,084	1,280	913

TABLE 2a—REPAIR AND MAINTENANCE OF DURABLE PHYSICAL ASSETS, 1926-1941
(Millions of Dollars)

Item No.	Type of expenditure	1926	1927	1928	1929
Public					
1	Direct government	61	74	81	90
2	Utilities (railways, telephones, electric and power and other)	82	87	93	96
3	Sub-total (Items 1 and 2)	143	161	174	186
Private					
4	Residential, commercial, industrial and institutional	119	119	136	151
5	Agriculture, mines, woods operations	39	40	43	42
6	Utilities (railways, telephones, electric and power)	82	87	94	91
7	Sub-total (Items 4 to 6)	240	246	273	284
8	TOTAL REPAIRS AND MAINTENANCE (Items 3 and 7)	383	407	447	470

TABLE 2b—DISTRIBUTION OF REPAIR AND MAINTENANCE OF DURABLE PHYSICAL ASSETS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1927	1928	1929
Public					
1	Direct government	15.9	18.2	18.1	19.2
2	Utilities (railways, telephones, electric and power and other)	21.4	21.4	20.8	20.4
3	Sub-total (Items 1 and 2)	37.3	39.6	38.9	39.6
Private					
4	Residential, commercial, industrial and institutional	31.1	29.2	30.4	32.1
5	Agriculture, mines, woods operations	10.2	9.8	9.6	8.9
6	Utilities (railways, telephones, electric and power)	21.4	21.4	21.1	19.4
7	Sub-total (Items 4 to 6)	62.7	60.4	61.1	60.4
8	Total Repairs and Maintenance (Items 3 and 7)	100.0	100.0	100.0	100.0

CANADA

TABLE 1c—GROSS INVESTMENT, EXCLUDING FARM INVENTORIES, 1926-1941
(Millions of Dollars)

1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Item No.
707	549	350	206	256	304	335	450	406	414	535	723	1
401	220	131	100	149	177	236	366	327	305	495	696	2
1,108	769	436	306	405	481	571	816	733	719	1,030	1,419	3
91	-6	-73	-139	17	14	27	107	35	50	155	252	4
1,199	763	363	167	422	495	598	923	768	769	1,185	1,671	5
-9	-21	13	7	11	.....	-133	-83	86	116	92	6	6
-337	-174	-96	-2	68	125	244	180	100	126	149	491	7
853	568	280	172	501	620	709	1,020	954	1,011	1,426	2,168	8
66	-1	20	-29	-12	13	-45	-22	32	50	77	-39	9
919	567	300	143	489	633	664	998	986	1,061	1,503	2,129	10

TABLE 2a—REPAIR AND MAINTENANCE OF DURABLE PHYSICAL ASSETS, 1926-1941
(Millions of Dollars)

1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Item No.
94	101	79	57	68	70	66	78	91	90	76	78	1
85	76	60	56	58	60	65	71	69	71	69	82	2
179	177	139	113	126	130	131	149	160	161	145	160	3
135	107	66	65	75	86	103	125	109	98	109	147	4
39	28	24	25	30	33	36	42	42	45	50	52	5
70	59	54	53	57	59	63	64	61	57	64	78	6
244	194	144	143	162	178	202	231	212	200	223	277	7
423	371	283	256	288	308	333	380	372	361	368	437	8

TABLE 2b—DISTRIBUTION OF REPAIR AND MAINTENANCE OF DURABLE PHYSICAL ASSETS, 1926-1941
(Percentages)

1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Item No.
22.2	27.2	27.9	22.2	23.6	22.7	19.8	20.5	24.5	24.9	20.7	17.8	1
20.1	20.5	21.2	21.9	20.2	19.5	19.5	18.7	18.5	19.7	18.7	18.8	2
42.3	47.7	49.1	44.1	43.8	42.2	39.3	39.2	43.0	44.6	39.4	36.6	3
31.9	28.8	23.3	25.4	26.0	27.9	30.9	32.9	29.3	27.1	29.6	33.6	4
9.2	7.6	8.5	9.8	10.4	10.7	10.9	11.1	11.3	12.5	13.6	11.9	5
16.6	15.9	19.1	20.7	19.8	19.2	18.9	16.8	16.4	15.8	17.4	17.9	6
57.7	52.3	50.9	55.9	56.2	57.8	60.7	60.8	57.0	55.4	60.6	63.4	7
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	8

CANADA

TABLE 3a—GROSS DOMESTIC CAPITAL FORMATION, GROSS INVESTMENT AND REPAIRS AND MAINTENANCE, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1927	1928	1929
	Public investment in durable physical assets and repairs and maintenance				
1	Direct government.....	159	195	222	258
2	Utilities (railways, telephones, electric and power and other).....	138	171	188	241
3	Sub-total (Items 1 and 2).....	297	366	410	499
	Private investment in durable physical assets and repairs and maintenance				
4	Residential, commercial, industrial and institutional.....	531	564	673	763
5	Agriculture, mines, woods operations.....	138	161	198	190
6	Utilities (railways, telephones, electric and power).....	193	205	238	282
7	Sub-total (Items 4 to 6).....	862	930	1,109	1,235
8	Total Investment in Durable Physical Assets and Repairs and Maintenance (Items 3 and 7).....	1,159	1,296	1,519	1,734
9	Change in business inventories (excluding grain in commercial channels).....	123	118	150	92
10	Total Domestic Capital Formation (excluding changes in grain in commercial channels and farm inventories) (Items 8 and 9).....	1,282	1,414	1,669	1,826
11	Changes in grain in commercial channels and farm inventories.....	59	87	90	-132
12	Gross Domestic Capital Formation (Items 10 and 11).....	1,341	1,501	1,759	1,694
13	Net Balance of international payments, current transactions.....	127	-10	-32	-311
14	TOTAL GROSS INVESTMENT (Items 12 and 13).....	1,468	1,491	1,727	1,383

TABLE 3b—DISTRIBUTION OF TOTAL INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIRS AND MAINTENANCE, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1927	1928	1929
	Public investment in durable physical assets and repairs and maintenance				
1	Direct government.....	13.7	15.1	14.6	14.9
2	Utilities (railways, telephones, electric and power and other).....	11.9	13.2	12.4	13.9
3	Sub-total (Items 1 and 2).....	25.6	28.3	27.0	28.8
	Private investment in durable physical assets and repairs and maintenance				
4	Residential, commercial, industrial and institutional.....	45.8	43.5	44.3	44.0
5	Agriculture, mines, woods operations.....	11.9	12.4	13.0	10.9
6	Utilities (railways, telephones, electric and power).....	16.7	15.8	15.7	16.3
7	Sub-total (Items 4 to 6).....	74.4	71.7	73.0	71.2
8	Total Investment in Durable Physical Assets and Repairs and Maintenance (Items 3 and 7)	100.0	100.0	100.0	100.0

CANADA

TABLE 3a—GROSS DOMESTIC CAPITAL FORMATION, GROSS INVESTMENT AND REPAIRS AND MAINTENANCE, 1926-1941

(Millions of Dollars)

1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Item No.
302	273	198	145	178	196	191	262	258	257	402	579	1
216	174	93	76	77	91	105	133	131	124	133	143	2
518	447	291	221	255	287	296	395	389	381	535	722	3
620	430	254	203	267	312	394	534	453	443	582	809	4
162	82	60	54	75	95	110	137	142	142	167	185	5
231	181	114	84	96	95	104	130	121	114	114	140	6
1,013	693	428	341	438	502	608	801	716	699	863	1,134	7
1,531	1,140	719	562	693	789	904	1,196	1,105	1,080	1,398	1,856	8
91	-6	-73	-139	17	14	27	107	35	50	155	252	9
1,622	1,134	646	423	710	803	931	1,303	1,140	1,130	1,553	2,108	10
57	-22	33	-22	-1	13	-178	-105	118	166	169	-33	11
1,679	1,112	679	401	709	816	753	1,198	1,258	1,296	1,722	2,075	12
-337	-174	-96	-2	68	125	244	180	100	126	149	491	13
1,342	938	583	399	777	941	997	1,378	1,358	1,422	1,871	2,566	14

Table 3b—DISTRIBUTION OF TOTAL INVESTMENT IN DURABLE PHYSICAL ASSETS AND REPAIRS AND MAINTENANCE, 1926-1941

(Percentages)

1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Item No.
19.7	23.9	27.5	25.8	25.7	24.9	21.1	21.9	23.3	23.8	28.8	31.2	1
14.1	15.3	12.9	13.5	11.1	11.5	11.6	11.1	11.9	11.5	9.5	7.7	2
33.8	39.2	40.4	39.3	36.8	36.4	32.7	33.0	35.2	35.3	38.3	38.9	3
40.5	37.7	35.3	36.1	38.5	39.6	43.6	44.6	41.0	41.0	41.6	43.6	4
10.6	7.2	8.4	9.6	10.8	12.0	12.2	11.5	12.9	13.1	11.9	10.0	5
15.1	15.9	15.9	15.0	13.9	12.0	11.5	10.9	10.9	10.6	8.2	7.5	6
66.2	60.8	59.6	60.7	63.2	63.6	67.3	67.0	64.8	64.7	61.7	61.1	7
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	8

CANADA

TABLE 4a—GROSS SAVINGS OFFSETS, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of offset	1926	1929	1930	1933	1937	1941
1	Excess of expenditure over revenue, all governments.....	-46	-28	148	205	115	224
2	Investment in durable physical assets, publicly-owned utilities (railways, telephones, electric and power and other).....	56	145	131	20	62	61
3	Sub-total (Items 1 and 2).....	10	117	279	225	177	285
	Private investment in durable physical assets						
4	Residential, commercial, industrial and institutional.....	412	612	485	138	409	662
5	Agriculture, mines, woods operation.....	99	148	123	29	95	133
6	Utilities (railways, telephones, electric and power).....	111	191	161	31	66	62
7	Sub-total (Items 4 to 6).....	622	951	769	198	570	857
8	Total savings offsets in government deficits and non-government investment in physical durable assets (Items 3 and 7).....	632	1,068	1,048	423	747	1,142
9	Change in business inventories (excluding change in grain in commercial channels).....	123	92	91	-139	107	252
10	Cumulative total (Items 8 and 9).....	755	1,160	1,139	284	854	1,394
11	Change in grain in commercial channels and farm inventories.....	59	-132	57	-22	-105	-33
12	Gross savings offsets (ex. international balance) (Items 10 and 11)....	814	1,028	1,196	262	749	1,361
13	Net balance of international payments, current transactions.....	127	-311	-337	-2	180	491
14	GROSS SAVINGS OFFSETS (Items 12 and 13).....	941	717	859	260	929	1,852

CANADA

TABLE 4b—GROSS SAVINGS OFFSETS, EXCLUDING FARM INVENTORIES,
SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of offset	1926	1929	1930	1933	1937	1941
1	Excess of expenditure over revenue, all governments..	-46	-28	148	205	115	224
2	Investment in durable physical assets, publicly-owned utilities and all private.....	678	1,096	900	218	632	918
3	Total savings offsets in government deficits and non-government investment in durable physical assets (Items 1 and 2).....	632	1,068	1,048	423	747	1,142
4	Change in business inventories (excluding change in grain in commercial channels).....	123	92	91	-139	107	252
5	Cumulative total (Items 3 and 4).....	755	1,160	1,139	284	854	1,394
6	Change in grain in commercial channels.....	-7	12	-9	7	-83	6
7	Net balance of international payments, current transactions.....	127	-311	-337	-2	180	491
8	GROSS SAVINGS OFFSETS (excluding farm inventories) (Items 5 to 7).....	875	861	793	289	951	1,891
9	Change in farm inventories.....	66	-144	66	-29	-22	-39
10	Gross Savings Offsets (Items 8 and 9).....	941	717	859	260	929	1,852

CANADA

TABLE 5a—GROSS INVESTMENT AND MAINTENANCE, CONSTRUCTION, BY TYPES, 1926-1941

(Millions of Dollars)

Item No.	Type of construction	1926	1927	1928	1929
	New and replacement construction				
1	Building construction, urban residential.....	160	183	208	208
2	Building construction, industrial, commercial, institutional, public utility and other.....	95	93	124	161
3	Building materials used on farms.....	27	27	30	29
4	Construction of all types, mining and woods operations.....	10	9	16	28
5	Engineering construction, public utility and government.....	186	212	265	326
6	Sub-total (Items 1 to 5).....	478	524	643	752
	Repairs and maintenance construction				
7	Urban residential.....	47	52	58	57
8	Industrial, commercial, institutional, public utility and other.....	58	54	67	74
9	Building materials used on farms.....	9	10	11	9
10	Mining and woods operation.....	10	10	11	12
11	Public utility and government, engineering.....	99	114	124	132
12	Sub-total (Items 7 to 11).....	223	240	271	284
	New and repair and maintenance				
13	Building construction, urban, residential.....	207	235	266	265
14	Building construction, industrial, commercial, institutional, public utility and other.....	153	147	191	235
15	Building materials used on farms.....	36	37	41	38
16	Construction of all types, mining and woods operation.....	20	19	27	40
17	Engineering construction, public utility and government.....	285	326	389	458
18	TOTAL NEW AND REPAIR AND MAINTENANCE CONSTRUCTION.....	701	764	914	1,036

TABLE 5b—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, CONSTRUCTION, BY TYPES, 1926-1941

(Percentages)

Item No.	Type of construction	1926	1927	1928	1929
	New and replacement construction				
1	Building construction, urban residential.....	33.5	34.9	32.3	27.7
2	Building construction, industrial, commercial, institutional, public utility and other.....	19.9	17.7	19.3	21.4
3	Building materials used on farms.....	5.6	5.2	4.7	3.8
4	Construction of all types, mining and woods operations.....	2.1	1.7	2.5	3.7
5	Engineering construction, public utility and government.....	38.9	40.5	41.2	43.4
6	Sub-total (Items 1 to 5).....	100.0	100.0	100.0	100.0
	Repair and maintenance construction				
7	Urban residential.....	21.1	21.7	21.4	20.1
8	Industrial, commercial, institutional, public utility and other.....	26.0	22.5	24.7	26.1
9	Building materials used on farms.....	4.0	4.2	4.1	3.2
10	Mining and woods operation.....	4.5	4.2	4.1	4.2
11	Public utility and government, engineering.....	44.4	47.4	45.7	46.4
12	Sub-total (Items 7 to 11).....	100.0	100.0	100.0	100.0
	New and repair and maintenance construction				
13	Building construction, urban residential.....	29.5	30.8	29.1	25.6
14	Building construction, industrial, commercial, institutional, public utility and other.....	21.8	19.2	20.9	22.7
15	Building materials used on farms.....	5.1	4.8	4.5	3.6
16	Construction of all types, mining and woods operation.....	2.9	2.5	2.9	3.9
17	Engineering construction, public utility and government.....	40.7	42.7	42.6	44.2
18	Total New and Repair and Maintenance Construction.....	100.0	100.0	100.0	100.0

TABLE 5a—GROSS INVESTMENT AND MAINTENANCE, CONSTRUCTION, BY TYPES,
1926-1941
(Millions of Dollars)

TABLE 5b—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE,
CONSTRUCTION BY TYPES, 1926-1941
(Percentages)

[illegible]

CANADA

TABLE 6a—GROSS INVESTMENT AND REPAIR, PRODUCERS' DURABLE GOODS, BY TYPES, 1926-1941

(Millions of Dollars)

Item No.	Type of durable goods	1926	1927	1928	1929
New and replacement					
1	Industrial machinery and equipment.....	88	105	123	141
2	Electrical machinery and equipment.....	17	21	26	27
3	Mining and oilwell machinery and equipment.....	9	10	12	20
4	Locomotives and railway cars.....	24	21	16	64
5	Farm machinery and equipment.....	49	69	93	71
6	Office and store machinery, equipment, furniture and fixtures.....	25	29	39	45
7	Ships and boats.....	7	23	25	27
8	Vehicles and aircraft.....	22	25	26	40
9	Professional and scientific equipment.....	7	9	9	11
10	Carpenters' and mechanics' tools.....	13	15	17	18
11	Durable containers.....	6	7	9	10
12	Miscellaneous durable equipment.....	26	26	28	29
13	Total Flow of New Producers' Durable Goods (Items 1 to 12).....	293	360	423	503
Repair parts					
14	Industrial machinery and equipment.....	9	11	13	14
15	Electrical machinery and equipment.....	2	3	4	4
16	Mining machinery and equipment.....	1	1	1	1
17	Locomotives and railway cars.....	2	2	2	5
18	Farm machinery and equipment.....	9	9	9	8
19	Office and miscellaneous machinery and equipment.....	1	1	2	2
Repair work					
20	Ships.....	7	8	2	7
21	Miscellaneous repair (iron and steel industry).....	16	17	19	22
22	Total Repair Parts and Repair Work (Items 14 to 21).....	47	52	52	63
New and repair					
23	Industrial machinery and equipment.....	97	116	136	155
24	Electrical machinery and equipment.....	19	24	30	31
25	Mining and oilwell machinery and equipment.....	10	11	13	21
26	Locomotives and railway cars.....	26	23	18	69
27	Farm machinery and equipment.....	58	78	102	79
28	Office and store machinery, equipment, furniture and fixtures.....	26	30	41	47
29	Ships and boats.....	14	31	27	34
30	Vehicles and aircraft.....	22	25	26	40
31	Professional and scientific equipment.....	7	9	9	11
32	Carpenters' and mechanics' tools.....	13	15	17	18
33	Durable containers.....	6	7	9	10
34	Miscellaneous durable equipment.....	42	43	47	51
35	TOTAL NEW AND REPAIR (Items 23 to 34).....	340	412	475	566

CANADA

TABLE 6a—GROSS INVESTMENT AND REPAIR, PRODUCERS' DURABLE GOODS, BY TYPES,
1926-1941

(Millions of Dollars)

1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Item No.
128	69	42	32	46	53	71	110	87	95	189	342	1
27	18	12	6	6	8	9	16	15	12	26	39	2
14	6	4	4	6	7	10	15	14	14	19	22	3
43	25	2	3	3	4	16	44	37	16	35	18	4
57	16	17	9	20	19	28	44	49	47	64	70	5
36	23	15	12	14	18	25	31	27	28	34	38	6
16	7	2	.....	1	2	1	3	7	2	1	.....	7
28	19	9	8	17	25	32	45	41	38	46	57	8
10	8	7	6	8	8	9	12	12	13	13	14	9
13	9	6	6	9	11	12	17	14	14	26	48	10
7	5	3	2	3	3	3	4	4	4	7	9	11
22	15	12	12	16	19	20	25	20	22	35	39	12
401	220	131	100	149	177	236	366	327	305	495	696	13
14	10	5	7	6	7	9	9	8	8	10	27	14
4	4	2	2	1	2	2	2	2	2	2	5	15
1	1	1	1	1	1	1	1	1	1	1	2	16
5	3	1	2	1	3	3	8	4	4	8	6	17
8	5	6	6	6	8	7	8	9	10	10	11	18
1	1	1	1	1	1	2	1	1	1	1	1	19
7	5	4	3	5	6	5	6	6	8	11	9	20
18	12	7	9	9	10	12	12	12	11	14	32	21
58	41	27	31	30	38	41	47	43	45	57	93	22
142	79	47	39	52	60	80	119	95	103	199	369	23
31	22	14	8	7	10	11	18	17	14	28	44	24
15	7	5	5	7	8	11	16	15	15	20	24	25
48	28	3	5	4	7	19	52	41	20	43	24	26
65	21	23	15	26	27	35	52	58	57	74	81	27
37	24	16	13	15	19	27	32	28	29	35	39	28
23	12	6	3	6	8	6	9	13	10	12	9	29
28	19	9	8	17	25	32	45	41	38	46	57	30
10	8	7	6	8	8	9	12	12	13	13	14	31
13	9	6	6	9	11	12	17	14	14	26	48	32
7	5	3	2	3	3	3	4	4	4	7	9	33
40	27	19	21	25	29	32	37	32	33	49	71	34
459	261	158	131	179	215	277	413	370	350	552	789	35

CANADA

TABLE 6b—DISTRIBUTION OF GROSS INVESTMENT AND REPAIR, PRODUCERS' DURABLE GOODS, BY TYPES, 1926-1941

(Percentages)

Item No.	Type of durable goods	1926	1927	1928	1929
New and replacement					
1	Industrial machinery and equipment.....	30.0	29.2	29.1	28.0
2	Electrical machinery and equipment.....	5.8	5.8	6.2	5.4
3	Mining and oilwell machinery and equipment.....	3.1	2.8	2.8	4.0
4	Locomotives and railway cars.....	8.2	5.8	3.8	12.7
5	Farm machinery and equipment.....	16.7	19.2	22.0	14.1
6	Office and store machinery, equipment, furniture and fixtures.....	8.5	8.1	9.2	8.9
7	Ships and boats.....	2.4	6.4	5.9	5.4
8	Vehicles and aircraft.....	7.5	6.9	6.2	8.0
9	Professional and scientific equipment.....	2.4	2.5	2.1	2.2
10	Carpenters' and mechanics' tools.....	4.4	4.2	4.0	3.6
11	Durable containers.....	2.1	1.9	2.1	1.9
12	Miscellaneous durable equipment.....	8.9	7.2	6.6	5.8
13	Total Flow of New Producers' Durable Goods (Items 1 to 12).....	100.0	100.0	100.0	100.0
Repair parts					
14	Industrial machinery and equipment.....	19.2	21.2	24.9	22.2
15	Electrical machinery and equipment.....	4.3	5.8	7.7	6.4
16	Mining machinery and equipment.....	2.1	1.9	1.9	1.6
17	Locomotives and railway cars.....	4.3	3.8	3.9	7.9
18	Farm machinery and equipment.....	19.1	17.3	17.3	12.7
19	Office and miscellaneous machinery and equipment.....	2.1	1.9	3.9	3.2
Repair work					
20	Ships.....	14.9	15.4	3.9	11.1
21	Miscellaneous repair (iron and steel industry).....	34.0	32.7	36.5	34.9
22	Total Repair Parts and Repair Work (Items 14 to 21).....	100.0	100.0	100.0	100.0
New and repair					
23	Industrial machinery and equipment.....	28.5	28.2	28.6	27.4
24	Electrical machinery and equipment.....	5.6	5.8	6.3	5.5
25	Mining and oilwell machinery and equipment.....	3.0	2.7	2.7	3.7
26	Locomotives and railway cars.....	7.6	5.6	3.8	12.2
27	Farm machinery and equipment.....	17.0	18.9	21.5	14.0
28	Office and store machinery, equipment, furniture and fixtures.....	7.6	7.3	8.6	8.3
29	Ships and boats.....	4.1	7.5	5.7	6.0
30	Vehicles and aircraft.....	6.5	6.1	5.5	7.1
31	Professional and scientific equipment.....	2.1	2.2	1.9	1.9
32	Carpenters' and mechanics' tools.....	3.8	3.6	3.6	3.2
33	Durable containers.....	1.8	1.7	1.9	1.7
34	Miscellaneous durable equipment.....	12.4	10.4	9.9	9.0
35	Total New and Repair (Items 23 to 34).....	100.0	100.0	100.0	100.0

TABLE 6b—DISTRIBUTION OF GROSS INVESTMENT AND REPAIR, PRODUCERS' DURABLE
GOODS, BY TYPES, 1926-1941

[illegible]

CANADA

TABLE 7a—VALUE OF THE PHYSICAL CHANGE IN INVENTORIES, 1926-1941

(Millions of Dollars)

Item No.	Type of inventory	1926	1927	1928	1929
1	Manufacturing	35	68	76	38
2	Wholesale trade	48	-3	25	29
3	Retail trade	48	42	44	15
4	Mining, utilities and misc	-8	11	5	10
5	Total Business Inventories (ex. grain in commercial channels) (Items 1 to 4) ..	123	118	150	92
6	Total Grain in Commercial Channels	-7	36	85	12
7	Grain on farms	69	60	10	-144
8	Livestock on farms	-3	-9	-5	.....
9	Total Farm Inventories (Items 7 and 8)	66	51	5	-144
10	TOTAL INVENTORIES (Items 5, 6 and 9)	182	205	240	-40

TABLE 7b—TOTAL BOOK VALUE OF INVENTORIES, 1926-1941

(Millions of Dollars)

Item No.	Type of inventory	1926	1927	1928	1929
1	Manufacturing	722	774	837	879
2	Wholesale trade	310	300	320	350
3	Retail trade	465	504	550	572
4	Mining, utilities and misc	111	102	114	118
5	Total Business Inventories (ex. grain in commercial channels) (Items 1 to 4) ..	1,608	1,680	1,821	1,919
6	Total Grain in Commercial Channels	148	162	201	287
7	Grain on farms	214	279	258	156
8	Livestock on farms	645	706	772	766
9	Total Farm Inventories (Items 7 and 8)	859	985	1,030	922
10	TOTAL INVENTORIES (Items 5, 6 and 9)	2,615	2,827	3,052	3,128

TABLE 7c—DISTRIBUTION OF BOOK VALUE OF INVENTORIES, 1926-1941

(Percentages)

Item No.	Type of inventory	1926	1927	1928	1929
1	Manufacturing	27.6	27.5	27.4	28.1
2	Wholesale trade	11.9	10.6	10.5	11.2
3	Retail trade	17.8	17.8	18.0	18.3
4	Mining, utilities and misc	4.2	3.6	3.7	3.8
5	Total Business Inventories (ex. grain in commercial channels) (Items 1 to 4) ..	61.5	59.5	5.96	61.4
6	Total Grain in Commercial Channels	5.7	5.7	6.7	9.1
7	Grain on farms	8.2	9.8	8.4	5.0
8	Livestock on farms	24.6	25.0	25.3	24.5
9	Total Farm Inventories (Items 7 and 8)	32.8	34.8	33.7	29.5
10	TOTAL INVENTORIES (Items 5, 6 and 9)	100.0	100.0	100.0	100.0

CANADA

TABLE 8a—BALANCE OF INTERNATIONAL PAYMENTS, CURRENT TRANSACTIONS,
1926-1941

(Millions of Dollars)

Item No.	Type of inventory	1926	1927	1928	1929
CREDITS					
1	Merchandise exports—after adjustment.....	1,272	1,215	1,341	1,178
2	Net exports of non-monetary gold.....	30	32	40	37
3	Tourist and travel expenditures.....	152	163	177	198
4	Interest and dividends.....	32	41	46	61
5	Freight and shipping.....	96	97	96	92
6	All other current credits.....	83	85	88	80
7	Total Current Credits (Items 1 to 6).....	1,665	1,633	1,788	1,646
DEBITS					
8	Merchandise imports—after adjustment.....	973	1,057	1,209	1,272
9	Tourist and travel expenditures.....	99	100	98	108
10	Interest and dividends.....	240	257	275	322
11	Freight and shipping.....	105	109	116	130
12	All other current debits.....	121	120	122	125
13	Total Current Debits (Items 8 to 12).....	1,538	1,643	1,820	1,957
NET BALANCES					
14	Merchandise trade—after adjustment.....	299	158	132	-94
15	Net exports of non-monetary gold.....	30	32	40	37
16	Tourist and travel expenditures.....	53	63	79	90
17	Interest and dividends.....	-208	-216	-229	-261
18	Freight and shipping.....	-9	-12	-20	-38
19	All other current transactions.....	-38	-35	-34	-45
20	TOTAL NET BALANCE (Items 14 to 19).....	127	-10	-32	-311

TABLE 8b—DISTRIBUTION OF BALANCE OF INTERNATIONAL PAYMENTS, CURRENT
TRANSACTIONS, 1926-1941

(Percentages)

Item No.	Type of inventory	1926	1927	1928	1929
CREDITS					
1	Merchandise exports—after adjustment.....	76.4	74.4	75.0	71.6
2	Net exports of non-monetary gold.....	1.8	2.0	2.2	2.2
3	Tourist and trade expenditures.....	9.1	10.0	9.9	12.0
4	Interest and dividends.....	1.9	2.5	2.6	3.7
5	Freight and shipping.....	5.8	5.9	5.4	5.6
6	All other current credits.....	5.0	5.2	4.9	4.9
7	Total Current Credits (Items 1 to 6).....	100.0	100.0	100.0	100.0
DEBITS					
8	Merchandise imports—after adjustment.....	63.3	64.3	66.4	65.0
9	Tourist and travel expenditures.....	6.4	6.2	5.4	5.5
10	Interest and dividends.....	15.6	15.6	15.1	16.5
11	Freight and shipping.....	6.8	6.6	6.4	6.6
12	All other current debits.....	7.9	7.3	6.7	6.4
13	Total Current Debits (Items 8 to 12).....	100.0	100.0	100.0	100.0

DOMINION GOVERNMENT

TABLE 9a—GROSS INVESTMENT, IN UTILITIES, BY TYPES, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
	Construction						
1	Steam and Electric Railways.....	31.8	79.3	54.6	6.4	13.5	17.8
2	Other.....		0.1	2.4		0.6	0.1
3	Sub-total (Items 1 and 2).....	31.8	79.4	57.0	6.4	14.1	17.9
	Machinery and Equipment						
4	Steam and Electric Railways.....	4.2	23.7	25.8	2.4	21.1	8.4
5	Other.....	0.3	3.1	0.4		1.1	1.0
6	Sub-total (Items 4 and 5).....	4.5	26.8	26.2	2.4	22.2	9.4
	Construction and Machinery and Equipment						
7	Steam and Electric Railways.....	36.0	103.0	80.4	8.8	34.6	26.2
8	Other.....	0.3	3.2	2.8		1.7	1.1
9	TOTAL UTILITY INVESTMENT (Items 7 and 8)...	36.3	106.2	83.2	8.8	36.3	27.3

TABLE 9b—GROSS INVESTMENT AND MAINTENANCE, IN UTILITIES, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Electric and Steam Railways.....	105.2	182.8	148.8	52.2	91.2	90.3
2	New investment, replacements and major improvements.....	36.0	103.0	80.4	8.8	34.6	26.2
3	Repairs, maintenance and alterations.....	69.2	79.8	68.4	43.4	56.6	64.1
4	Other.....	0.3	3.2	3.0		1.8	2.0
5	New investment, replacements and major improvements.....	0.3	3.2	3.0		1.7	1.1
6	Repairs, maintenance and alterations.....					0.1	0.9
7	Total Utility Investment and Maintenance.....	105.5	186.0	151.8	52.2	93.0	92.3
8	New investment, replacements and major improvements.....	36.3	106.2	83.4	8.8	36.3	27.3
9	Repairs, maintenance and alterations.....	69.2	79.8	68.4	43.4	56.7	65.0

DOMINION GOVERNMENT

TABLE 9c—DISTRIBUTION OF GROSS INVESTMENT, IN UTILITIES, BY TYPES, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
	Construction						
1	Steam and Electric Railways.....	100.0	99.9	95.8	100.0	95.7	99.4
2	Other.....		0.1	4.2		4.3	0.6
3	Sub-total (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0
	Machinery and Equipment						
4	Steam and Electric Railways.....	93.3	88.4	98.5	100.0	95.0	89.4
5	Other.....	6.7	11.6	1.5		5.0	10.6
6	Sub-total (Items 4 and 5).....	100.0	100.0	100.0	100.0	100.0	100.0
	Construction and Machinery and Equipment						
7	Steam and Electric Railways.....	99.2	97.0	96.6	100.0	95.3	96.0
8	Other.....	0.8	3.0	3.4		4.7	4.0
9	TOTAL UTILITY INVESTMENT (Items 7 and 8)...	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 9d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, IN UTILITIES, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Electric and Steam Railways.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	34.2	56.3	54.0	16.9	37.9	29.0
3	Repairs, maintenance and alterations.....	65.8	43.7	46.0	83.1	62.1	71.0
4	Other.....	100.0	100.0	100.0		100.0	100.0
5	New investment, replacements and major improvements.....	100.0	100.0	100.0		94.4	55.0
6	Repairs, maintenance and alterations.....					5.6	45.0
7	Total Utility Investment and Maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	34.4	57.1	54.9	16.9	39.0	29.6
9	Repairs, maintenance and alterations.....	65.6	42.9	45.1	83.1	61.0	70.4

ALL PROVINCIAL GOVERNMENTS

TABLE 10a—GROSS INVESTMENT, IN UTILITIES, BY TYPES, SELECTED YEARS, 1926-1941
(Millions of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
	Construction						
1	Electric and Steam Railways.....	3.7	0.7	5.8	0.1	0.3	0.3
2	Electric Light and Power.....	2.4	12.0	14.1	2.2	5.8	8.0
3	Telephones.....	2.4	4.6	4.2	0.8	1.4	2.2
4	Sub-total (Items 1 to 3).....	8.5	17.3	24.1	3.1	7.5	10.5
	Machinery and Equipment						
5	Electric and Steam Railways.....	0.6	0.1	0.4	0.1	0.7	0.2
6	Electric Light and Power.....	1.6	6.6	5.8	1.1	5.4	10.0
7	Telephones.....						
8	Sub-total (Items 5 to 7).....	2.2	6.7	6.2	1.2	6.1	10.2
	Construction and Machinery and Equipment						
9	Electric and Steam Railways.....	4.3	0.8	6.2	0.2	1.0	0.5
10	Electric Light and Power.....	4.0	18.6	19.9	3.3	11.2	18.0
11	Telephones.....	2.4	4.6	4.2	0.8	1.4	2.2
12	TOTAL UTILITY INVESTMENT (Items 9 to 11)...	10.7	24.0	30.3	4.3	13.6	20.7

TABLE 10b—GROSS INVESTMENT AND MAINTENANCE, IN UTILITIES, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Electric and Steam Railways.....	6.2	2.7	7.9	1.5	2.6	2.3
2	New investment, replacements and major improvements.....	4.3	0.8	6.2	0.2	1.0	0.5
3	Repairs, maintenance and alterations.....	1.9	1.9	1.7	1.3	1.6	1.8
4	Electric Light and Power.....	5.6	21.0	22.4	5.9	13.6	20.8
5	New investment, replacements and major improvements.....	4.0	18.6	19.9	3.3	11.2	18.0
6	Repairs, maintenance and alterations.....	1.6	2.4	2.5	2.6	2.4	2.8
7	Telephones.....	3.3	6.0	5.7	1.9	2.8	3.9
8	New investment, replacements and major improvements.....	2.4	4.6	4.2	0.8	1.4	2.2
9	Repairs, maintenance and alterations.....	0.9	1.4	1.5	1.1	1.4	1.7
10	Total Utility Investment and Maintenance.....	15.1	29.7	36.0	9.3	19.0	27.0
11	New investment, replacements and major improvements.....	10.7	24.0	30.3	4.3	13.6	20.7
12	Repairs, maintenance and alterations.....	4.4	5.7	5.7	5.0	5.4	6.3

ALL PROVINCIAL GOVERNMENTS

TABLE 10c—DISTRIBUTION OF GROSS INVESTMENT, IN UTILITIES, BY TYPES, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
	Construction						
1	Electric and Steam Railways.....	43.6	4.0	24.1	3.2	4.0	2.9
2	Electric Light and Power.....	28.2	69.4	58.5	71.0	77.3	76.2
3	Telephones.....	28.2	26.6	17.4	25.8	18.7	20.9
4	Sub-total (Items 1 to 3).....	100.0	100.0	100.0	100.0	100.0	100.0
	Machinery and Equipment						
5	Electric and Steam Railways.....	27.3	1.5	6.5	8.3	11.5	2.0
6	Electric Light and Power.....	72.7	98.5	93.5	91.7	88.5	98.0
7	Telephones.....						
8	Sub-total (Items 5 to 7).....	100.0	100.0	100.0	100.0	100.0	100.0
	Construction and Machinery and Equipment.....						
9	Electric and Steam Railways.....	40.2	3.3	20.5	4.7	7.3	2.4
10	Electric Light and Power.....	37.4	77.5	65.7	76.7	82.4	87.0
11	Telephones.....	22.4	19.2	13.8	18.6	10.3	10.6
12	TOTAL UTILITY INVESTMENT (Items 9 to 11) ..	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 10d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, IN UTILITIES, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Electric and Steam Railways.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	69.4	29.6	78.5	13.3	38.5	21.7
3	Repairs, maintenance and alterations.....	30.6	70.4	21.5	86.7	61.5	78.3
4	Electric Light and Power.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	71.4	88.6	88.8	55.9	82.4	86.5
6	Repairs, maintenance and alterations.....	28.6	11.4	11.2	44.1	17.6	13.5
7	Telephones.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	72.7	76.7	73.7	42.1	50.0	56.4
9	Repairs, maintenance and alterations.....	27.3	23.3	26.3	57.9	50.0	43.6
10	Total Utility Investment and Maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	70.9	80.8	84.2	46.2	71.6	76.7
12	Repairs, maintenance and alterations.....	29.1	19.2	15.8	53.8	28.4	23.3

MUNICIPAL GOVERNMENTS

TABLE 11a—GROSS INVESTMENT, UTILITIES, BY TYPES, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
	Construction						
1	Electric and Steam Railways.....	1.1	1.2	1.0	0.2	0.8	0.2
2	Electric Light and Power.....	4.2	9.0	10.4	2.4	3.6	4.0
3	Telephones.....	0.1	0.1	0.1	.....	0.1	0.1
4	Waterworks and other Municipal Utilities.....	3.2	4.8	4.8	3.3	3.4	2.9
5	Sub-total (Items 1 to 4).....	8.6	15.1	16.3	5.9	7.9	7.2
	Machinery and Equipment						
6	Electric and Steam Railways.....	0.5	0.9	0.6	0.2	0.5	1.0
7	Electric Light and Power.....	2.7	4.9	4.3	1.2	3.3	5.0
8	Telephones.....	.....	.....	.....	.....	.....	.....
9	Waterworks and other Municipal Utilities.....	.....	.....	.....	.....	.....	.....
10	Sub-total (Items 6 to 9).....	3.2	5.8	4.9	1.4	3.8	6.0
	Construction and Machinery and Equipment						
11	Electric and Steam Railways.....	1.6	2.1	1.6	0.4	1.3	1.2
12	Electric Light and Power.....	6.9	13.9	14.7	3.6	6.9	9.0
13	Telephones.....	0.1	0.1	0.1	.....	0.1	0.1
14	Waterworks and other Municipal Utilities.....	3.2	4.8	4.8	3.3	3.4	2.9
15	TOTAL UTILITY INVESTMENT (Items 11 to 14)...	11.8	20.9	21.2	7.3	11.7	13.2

TABLE 11b—GROSS INVESTMENT AND MAINTENANCE, IN UTILITIES, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Electric and Steam Railways.....	4.3	4.8	4.2	2.0	3.1	3.8
2	New investment, replacements and major improvements.....	1.6	2.1	1.6	0.4	1.3	1.2
3	Repairs, maintenance and alterations.....	2.7	2.7	2.6	1.6	1.8	2.6
4	Electric Light and Power.....	9.7	17.5	18.5	6.6	10.5	13.1
5	New investment, replacements and major improvements.....	6.9	13.9	14.7	3.6	6.9	9.0
6	Repairs, maintenance and alterations.....	2.8	3.6	3.8	3.0	3.6	4.1
7	Telephones.....	0.4	0.5	0.5	0.3	0.5	0.6
8	New investment, replacements and major improvements.....	0.1	0.1	0.1	.....	0.1	0.1
9	Repairs, maintenance and alterations.....	0.3	0.4	0.4	0.3	0.4	0.5
10	Waterworks and other Municipal Utilities.....	6.0	8.4	8.6	6.0	6.2	6.4
11	New investment, replacements and major improvements.....	3.2	4.8	4.8	3.3	3.4	2.9
12	Repairs, maintenance and alterations.....	2.8	3.6	3.8	2.7	2.8	3.5
13	Total Utility Investment and Maintenance.....	20.4	31.2	31.8	14.9	20.3	23.9
14	New investment, replacements and major improvements.....	11.8	20.9	21.2	7.3	11.7	13.2
15	Repairs, maintenance and alterations.....	8.6	10.3	10.6	7.6	8.6	10.7

MUNICIPAL GOVERNMENTS

TABLE 11c—DISTRIBUTION OF GROSS INVESTMENT, IN UTILITIES, BY TYPES, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
	Construction						
1	Electric and Steam Railways.....	12.8	7.9	6.1	3.4	10.1	2.8
2	Electric Light and Power.....	48.8	59.6	63.8	40.7	45.6	55.6
3	Telephones.....	1.2	0.7	0.6	.....	1.3	1.4
4	Waterworks and other Municipal Utilities.....	37.2	31.8	29.5	55.9	43.0	40.2
5	Sub-total (Items 1 to 4).....	100.0	100.0	100.0	100.0	100.0	100.0
	Machinery and Equipment						
6	Electric and Steam Railways.....	15.6	15.5	12.2	14.3	13.2	16.7
7	Electric Light and Power.....	84.4	84.5	87.8	85.7	86.8	83.3
8	Telephones.....	.....	.....	.....	.....	.....	.....
9	Waterworks and other Municipal Utilities.....	.....	.....	.....	.....	.....	.....
10	Sub-total (Items 6 to 9).....	100.0	100.0	100.0	100.0	100.0	100.0
	Construction and Machinery and Equipment						
11	Electric and Steam Railways.....	13.6	10.0	7.5	5.5	11.1	9.1
12	Electric Light and Power.....	58.5	66.5	69.3	49.3	59.0	68.2
13	Telephones.....	0.8	0.5	0.5	.....	0.9	0.8
14	Waterworks and other Municipal Utilities.....	27.1	23.0	22.7	45.2	29.0	21.9
15	TOTAL UTILITY INVESTMENT (Items 11 to 14).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 11d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, IN UTILITIES, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Electric and Steam Railways.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	37.2	43.8	38.1	20.0	41.9	31.6
3	Repairs, maintenance and alterations.....	62.8	56.2	61.9	80.0	58.1	68.4
4	Electric Light and Power.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	71.1	79.4	79.5	54.5	65.7	68.7
6	Repairs, maintenance and alterations.....	28.9	20.6	20.5	45.5	34.3	31.3
7	Telephones.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	25.0	20.0	20.0	.....	20.0	16.7
9	Repairs, maintenance and alterations.....	75.0	80.0	80.0	100.0	80.0	83.3
10	Waterworks and other Municipal Utilities.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	53.3	57.1	55.8	55.0	54.8	45.3
12	Repairs, maintenance and alterations.....	46.7	42.9	44.2	45.0	45.2	54.7
13	Total Utility Investment and Maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
14	New investment, replacements and major improvements.....	57.8	67.0	66.7	49.0	57.6	55.2
15	Repairs, maintenance and alterations.....	42.2	33.0	33.3	51.0	42.4	44.8

ALL GOVERNMENTS

TABLE 12a—GROSS INVESTMENT, IN UTILITIES, BY TYPES, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
	Construction						
1	Electric and Steam Railways.....	36.6	81.2	61.4	6.7	14.6	18.3
2	Electric Light and Power.....	6.6	21.0	24.5	4.6	9.4	12.0
3	Telephones.....	2.5	4.7	4.3	0.8	1.5	2.3
4	Other.....	3.2	4.9	7.2	3.3	4.0	3.0
5	Sub-total (Items 1 to 4).....	48.9	111.8	97.4	15.4	29.5	35.6
	Machinery and Equipment						
6	Electric and Steam Railways.....	5.3	24.7	26.8	2.7	22.3	9.6
7	Electric Light and Power.....	4.3	11.5	10.1	2.3	8.7	15.0
8	Telephones.....						
9	Other.....	0.3	3.1	0.4		1.1	1.0
10	Sub-total (Items 6 to 9).....	9.9	39.3	37.3	5.0	32.1	25.6
	Construction and Machinery and Equipment						
11	Electric and Steam Railways.....	41.9	105.9	88.2	9.4	36.9	27.9
12	Electric Light and Power.....	10.9	32.5	34.6	6.9	18.1	27.0
13	Telephones.....	2.5	4.7	4.3	0.8	1.5	2.3
14	Other.....	3.5	8.0	7.6	3.3	5.1	4.0
15	TOTAL UTILITY INVESTMENT (Items 11 to 14).....	58.8	151.1	134.7	20.4	61.6	61.2

TABLE 12b—GROSS INVESTMENT AND MAINTENANCE, IN UTILITIES, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Electric and Steam Railways.....	115.7	190.3	160.9	55.7	96.9	96.4
2	New investment, replacements and major improvements.....	41.9	105.9	88.2	9.4	36.9	27.9
3	Repairs, maintenance and alterations.....	73.8	84.4	72.7	46.3	60.0	68.5
4	Electric Light and Power.....	15.3	38.5	40.9	12.5	24.1	33.9
5	New investment, replacements and major improvements.....	10.9	32.5	34.6	6.9	18.1	27.0
6	Repairs, maintenance and alterations.....	4.4	6.0	6.3	5.6	6.0	6.9
7	Telephones.....	3.7	6.5	6.2	2.2	3.3	4.5
8	New investment, replacements and major improvements.....	2.5	4.7	4.3	0.8	1.5	2.3
9	Repairs, maintenance and alterations.....	1.2	1.8	1.9	1.4	1.8	2.2
10	Other.....	6.4	11.6	11.6	6.0	8.0	8.4
11	New investment, replacements and major improvements.....	3.5	8.0	7.8	3.3	5.1	4.0
12	Repairs, maintenance and alterations.....	2.9	3.6	3.8	2.7	2.9	4.4
13	Total Utility Investment and Maintenance.....	141.1	246.9	219.6	76.4	132.3	143.2
14	New investment, replacements and major improvements.....	58.8	151.1	134.9	20.4	61.6	61.2
15	Repairs, maintenance and alterations.....	82.3	95.8	84.7	56.0	70.7	82.0

ALL GOVERNMENTS

TABLE 12c—DISTRIBUTION OF GROSS INVESTMENT, IN UTILITIES, BY TYPES, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
	Construction						
1	Electric and Steam Railways.....	74.8	72.6	63.0	43.5	49.5	51.4
2	Electric Light and Power.....	13.5	18.8	25.2	29.9	31.9	33.7
3	Telephones.....	5.1	4.2	4.4	5.2	5.1	6.5
4	Other.....	6.6	4.4	7.4	21.4	13.5	8.4
5	Sub-total (Items 1 to 4).....	100.0	100.0	100.0	100.0	100.0	100.0
	Machinery and Equipment						
6	Electric and Steam Railways.....	53.5	62.8	71.8	54.0	69.5	37.5
7	Electric Light and Power.....	43.4	29.3	27.1	46.0	27.1	58.6
8	Telephones.....						
9	Other.....	3.1	7.9	1.1		3.4	3.9
10	Sub-total (Items 6 to 9).....	100.0	100.0	100.0	100.0	100.0	100.0
	Construction and Machinery and Equipment						
11	Electric and Steam Railways.....	71.3	70.1	65.5	46.1	59.9	45.6
12	Electric Light and Power.....	18.5	21.5	25.7	33.8	29.4	44.1
13	Telephones.....	4.2	3.1	3.2	3.9	2.4	3.8
14	Other.....	6.0	5.3	5.6	16.2	8.3	6.5
15	TOTAL UTILITY INVESTMENT (Items 11 to 14)...	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 12d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, IN UTILITIES, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Electric and Steam Railways.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	36.2	55.6	54.8	16.9	38.1	28.9
3	Repairs, maintenance and alterations.....	63.8	44.4	45.2	83.1	61.9	71.1
4	Electric Light and Power.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	71.2	84.4	84.6	55.2	75.1	79.6
6	Repairs, maintenance and alterations.....	28.8	15.6	15.4	44.8	24.9	20.4
7	Telephones.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	67.6	72.3	69.4	36.4	45.5	51.1
9	Repairs, maintenance and alterations.....	32.4	27.7	30.6	63.6	54.5	48.9
10	Other.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	54.7	69.0	67.2	55.0	63.8	47.6
12	Repairs, maintenance and alterations.....	45.3	31.0	32.8	45.0	36.2	52.4
13	Total Utility Investment and Maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
14	New investment, replacements and major improvements.....	41.7	61.2	61.4	26.7	46.6	42.7
15	Repairs, maintenance and alterations.....	58.3	38.8	38.6	73.3	53.4	57.3

PRIVATE

TABLE 13a—GROSS INVESTMENT, IN UTILITIES, BY TYPES, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
Construction							
1	Steam and Electric Railways.....	36.0	63.3	43.8	7.5	11.7	11.3
2	Electric Light and Power.....	19.4	27.4	39.9	6.5	6.8	8.1
3	Telephones.....	23.2	39.8	38.5	12.7	19.4	20.2
4	Sub-total (Items 1 to 3).....	78.6	130.5	122.2	26.7	37.9	39.6
Machinery and Equipment							
5	Steam and Electric Railways.....	19.2	45.3	22.3	0.8	21.7	11.6
6	Electric Light and Power.....	12.9	15.6	16.6	3.3	6.7	10.2
7	Telephones.....						
8	Sub-total (Items 5 to 7).....	32.1	60.9	38.9	4.1	28.4	21.8
Construction and Machinery and Equipment							
9	Steam and Electric Railways.....	55.2	108.6	66.1	8.3	33.4	22.9
10	Electric Light and Power.....	32.3	43.0	56.5	9.8	13.5	18.3
11	Telephones.....	23.2	39.8	38.5	12.7	19.4	20.2
12	TOTAL UTILITY INVESTMENT (Items 9 to 11).....	110.7	191.4	161.1	30.8	66.3	61.4

TABLE 13b—GROSS INVESTMENT AND MAINTENANCE, IN UTILITIES, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Electric and Steam Railways.....	126.8	185.1	119.9	47.4	83.1	82.7
2	New investment, replacements and major improvements.....	55.2	108.6	66.1	8.3	33.4	22.9
3	Repairs, maintenance and alterations.....	71.6	76.5	53.8	39.1	49.7	59.8
4	Electric Light and Power.....	35.1	47.3	61.1	14.7	18.2	23.8
5	New investment, replacements and major improvements.....	32.3	43.0	56.5	9.8	13.5	18.3
6	Repairs, maintenance and alterations.....	2.8	4.3	4.6	4.9	4.7	5.5
7	Telephones.....	30.3	50.3	49.9	21.2	29.5	32.4
8	New investment, replacements and major improvements.....	23.2	39.8	38.5	12.7	19.4	20.2
9	Repairs, maintenance and alterations.....	7.1	10.5	11.4	8.5	10.1	12.2
10	Total Utility Investment and Maintenance.....	192.2	282.7	230.9	83.3	130.8	138.9
11	New investment, replacements and major improvements.....	110.7	191.4	161.1	30.8	66.3	61.4
12	Repairs, maintenance and alterations.....	81.5	91.3	69.8	52.5	64.5	77.5

PRIVATE

TABLE 13c—DISTRIBUTION OF GROSS INVESTMENT, IN UTILITIES, BY TYPES, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
Construction							
1	Steam and Electric Railways.....	45.8	48.5	35.8	27.8	30.9	28.5
2	Electric Light and Power.....	24.7	21.0	32.7	24.4	17.9	20.5
3	Telephones.....	29.5	30.5	31.5	47.8	51.2	51.0
4	Sub-total (Items 1 to 3).....	100.0	100.0	100.0	100.0	100.0	100.0
Machinery and Equipment							
5	Steam and Electric Railways.....	59.8	74.4	57.3	19.5	76.4	53.2
6	Electric Light and Power.....	40.2	25.6	42.7	80.5	23.6	46.8
7	Telephones.....						
8	Sub-total (Items 5 to 7).....	100.0	100.0	100.0	100.0	100.0	100.0
Construction and Machinery and Equipment							
9	Steam and Electric Railways.....	49.9	56.7	41.0	26.9	50.4	37.3
10	Electric Light and Power.....	29.2	22.5	35.1	31.8	20.4	29.8
11	Telephones.....	20.9	20.8	23.9	41.3	29.2	32.9
12	TOTAL UTILITY INVESTMENT (Items 9 to 11)...	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 13d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, IN UTILITIES, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Electric and Steam Railways.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	43.5	58.7	55.1	17.5	40.2	27.7
3	Repairs, maintenance and alterations.....	56.5	41.3	44.9	82.5	59.8	72.3
4	Electric Light and Power.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	92.0	90.9	92.5	66.7	74.2	76.9
6	Repairs, maintenance and alterations.....	8.0	9.1	7.5	33.3	25.8	23.1
7	Telephones.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	76.6	79.1	77.2	60.0	65.8	62.3
9	Repairs, maintenance and alterations.....	23.4	20.9	22.8	40.0	34.2	37.7
10	Total Utility Investment and Maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	57.6	67.7	69.8	37.0	50.7	44.2
12	Repairs, maintenance and alterations.....	42.4	32.3	30.2	63.0	49.3	55.8

CANADA

TABLE 14a—GROSS INVESTMENT IN UTILITIES, PUBLICLY AND PRIVATELY OWNED, BY TYPES, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
	Construction						
1	Electric and Steam Railways.....	72.6	144.5	105.2	14.2	26.3	29.6
2	Electric Light and Power.....	26.0	48.4	64.4	11.1	16.2	20.1
3	Telephones.....	25.7	44.5	42.8	13.5	20.9	22.5
4	Other.....	3.2	4.9	7.2	3.3	4.0	3.0
5	Sub-total (Items 1 to 4).....	127.5	242.3	219.6	42.1	67.4	75.2
	Machinery and Equipment						
6	Electric and Steam Railways.....	24.5	70.0	49.1	3.5	44.0	21.2
7	Electric Light and Power.....	17.2	27.1	26.7	5.6	15.4	25.2
8	Telephones.....						
9	Other.....	.3	3.1	.4		1.1	1.0
10	Sub-total (Items 6 to 9).....	42.0	100.2	76.2	9.1	60.5	47.4
	Construction and Machinery and Equipment						
11	Electric and Steam Railways.....	97.1	214.5	154.3	17.7	70.3	50.8
12	Electric Light and Power.....	43.2	75.5	91.1	16.7	31.6	45.3
13	Telephones.....	25.7	44.5	42.8	13.5	20.9	22.5
14	Other.....	3.5	8.0	7.6	3.3	5.1	4.0
15	TOTAL UTILITY INVESTMENT (Items 11 to 14)...	169.5	342.5	295.8	51.2	127.9	122.6

TABLE 14b—GROSS INVESTMENT AND MAINTENANCE, IN UTILITIES, PUBLICLY AND PRIVATELY OWNED, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Electric and Steam Railways.....	242.5	375.4	280.8	103.1	180.0	179.1
2	New investment, replacements and major improvements.....	97.1	214.5	154.3	17.7	70.3	50.8
3	Repairs, maintenance and alterations.....	145.4	160.9	126.5	85.4	109.7	128.3
4	Electric Light and Power.....	50.4	85.8	102.0	27.2	42.3	57.7
5	New investment, replacements and major improvements.....	43.2	75.5	91.1	16.7	31.6	45.3
6	Repairs, maintenance and alterations.....	7.2	10.3	10.9	10.5	10.7	12.4
7	Telephones.....	34.0	56.8	56.1	23.4	32.8	36.9
8	New investment, replacements and major improvements.....	25.7	44.5	42.8	13.5	20.9	22.5
9	Repairs, maintenance and alterations.....	8.3	12.3	13.3	9.9	11.9	14.4
10	Other.....	6.4	11.6	11.6	6.0	8.0	8.4
11	New investment, replacements and major improvements.....	3.5	8.0	7.8	3.3	5.1	4.0
12	Repairs, maintenance and alterations.....	2.9	3.6	3.8	2.7	2.9	4.4
13	Total Utility Investment and Maintenance.....	333.3	529.6	450.5	159.7	263.1	282.1
14	New investment, replacements and major improvements.....	169.5	342.5	296.0	51.2	127.9	122.6
15	Repairs, maintenance and alterations.....	163.8	187.1	154.5	108.5	135.2	159.5

CANADA

TABLE 14c—DISTRIBUTION OF GROSS INVESTMENT IN UTILITIES, PUBLICLY AND PRIVATELY OWNED, BY TYPES, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
Construction							
1	Electric and Steam Railways.....	56.9	59.6	47.9	33.6	39.3	39.4
2	Electric Light and Power.....	20.4	20.0	29.3	26.4	23.9	26.7
3	Telephones.....	20.2	18.4	19.5	32.1	30.9	29.9
4	Other.....	2.5	2.0	3.3	7.9	5.9	4.0
5	Sub-total (Items 1 to 4).....	100.0	100.0	100.0	100.0	100.0	100.0
Machinery and Equipment							
6	Electric and Steam Railways.....	58.3	69.9	64.4	38.5	72.7	44.7
7	Electric Light and Power.....	41.0	27.0	35.1	61.5	25.5	53.2
8	Telephones.....						
9	Other.....	.7	3.1	.5		1.8	2.1
10	Sub-total (Items 6 to 9).....	100.0	100.0	100.0	100.0	100.0	100.0
Construction and Machinery and Equipment							
11	Electric and Steam Railways.....	57.3	62.6	52.2	34.6	55.0	41.4
12	Electric Light and Power.....	25.5	22.0	30.8	32.6	24.7	36.9
13	Telephones.....	15.2	13.0	14.5	26.4	16.3	18.4
14	Other.....	2.0	2.4	2.5	6.4	4.0	3.3
15	TOTAL UTILITY INVESTMENT (Items 11 to 14).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 14d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, IN UTILITIES, PUBLICLY AND PRIVATELY OWNED, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Electric and Steam Railways.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	40.0	57.1	55.0	17.2	39.1	28.4
3	Repairs, maintenance and alterations.....	60.0	42.9	45.0	82.8	60.9	71.6
4	Electric Light and Power.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	85.7	88.0	89.3	61.4	74.7	78.5
6	Repairs, maintenance and alterations.....	14.3	12.0	10.7	38.6	25.3	21.5
7	Telephones.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	75.6	78.3	76.3	57.7	63.7	61.0
9	Repairs, maintenance and alterations.....	24.4	21.7	23.7	42.3	36.3	39.0
10	Other.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	54.7	69.0	67.2	55.0	63.8	47.6
12	Repairs, maintenance and alterations.....	45.3	31.0	32.8	45.0	36.2	52.4
13	Total Utility Investment and Maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
14	New investment, replacements and major improvements.....	50.9	64.7	65.7	32.1	48.6	43.5
15	Repairs, maintenance and alterations.....	49.1	35.3	34.3	67.9	51.4	56.5

ALL GOVERNMENTS

TABLE 15a—GROSS INVESTMENT AND MAINTENANCE, BY GOVERNMENTS, 1926-1941

(Millions of Dollars)

Item No.	Type	1926	1927	1928	1929
	New investment, replacements and major improvements				
1	Dominion Government.....	35.4	45.6	50.5	58.5
2	Provincial governments.....	28.8	36.3	47.8	59.7
3	Municipal governments.....	33.3	39.0	42.9	49.3
4	Sub-total (Items 1 to 3).....	97.5	120.9	141.2	167.5
	Repairs, maintenance and alterations				
5	Dominion Government.....	12.0	16.0	18.2	21.4
6	Provincial governments.....	21.0	24.2	28.1	31.0
7	Municipal governments.....	28.3	33.3	35.1	37.2
8	Sub-total (Items 5 to 7).....	61.3	73.5	81.4	89.6
	New investment, replacements and major improvements and repairs, maintenance and alterations				
9	Dominion Government.....	47.4	61.6	68.7	79.9
10	Provincial governments.....	49.8	60.5	75.9	90.7
11	Municipal governments.....	61.6	72.3	78.0	86.5
12	GROSS INVESTMENT AND MAINTENANCE (Items 9 to 11).....	158.8	194.4	222.6	257.1

TABLE 15b—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, BY GOVERNMENTS,
1926-1941

(Percentages)

Item No.	Type	1926	1927	1928	1929
	New investment, replacements and major improvements				
1	Dominion Government.....	36.3	37.7	35.8	34.9
2	Provincial governments.....	29.5	30.0	33.8	35.6
3	Municipal governments.....	34.2	32.3	30.4	29.5
4	Sub-total (Items 1 to 3).....	100.0	100.0	100.0	100.0
	Repairs, maintenance and alterations				
5	Dominion Government.....	19.6	21.8	22.4	23.9
6	Provincial governments.....	34.2	32.9	34.5	34.6
7	Municipal governments.....	46.2	45.3	43.1	41.5
8	Sub-total (Items 5 to 7).....	100.0	100.0	100.0	100.0
	New investment, replacements and major improvements and repairs, maintenance and alterations				
9	Dominion Government.....	29.8	31.7	30.9	31.1
10	Provincial governments.....	31.4	31.1	34.1	35.3
11	Municipal governments.....	38.8	37.2	35.0	33.6
12	GROSS INVESTMENT AND MAINTENANCE (Items 9 to 11).....	100.0	100.0	100.0	100.0

[illegible]

ALL GOVERNMENTS

TABLE 16a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS, 1926-1941
(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges	60,532	100,175	118,948	60,615	144,610	92,469
2	Public buildings and other works	61,925	101,702	119,284	51,876	63,649	262,204
3	Public construction (Items 1 and 2)	122,457	201,877	238,232	112,491	208,259	354,673
4	Planning and administrative expenses	9,797	16,151	19,059	8,998	16,661	28,575
5	Public works (Items 3 and 4)	132,254	218,028	257,291	121,489	224,920	383,248
6	Natural resources	13,494	19,540	22,630	13,073	21,862	19,060
7	Machinery and equipment	21,249	33,537	38,888	19,802	33,288	191,052
8	Sub-total (Items 5 to 7)	166,997	271,105	318,809	154,364	280,070	593,360
9	Duplications	8,158	14,012	16,617	9,089	18,619	14,360
10	GROSS INVESTMENT AND MAINTENANCE (Item 8 less 9)	158,839	257,093	302,192	145,275	261,451	579,000

TABLE 16b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION,
SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction	122,457	201,877	238,232	112,491	208,259	354,673
2	New investment, replacements and major improvements	79,321	136,669	170,703	71,073	150,214	296,874
3	Repairs, maintenance and alterations	43,136	65,208	67,529	41,418	58,045	57,799
4	Natural resources	13,494	19,540	22,630	13,073	21,862	19,060
5	New investment, replacements and major improvements	3,281	6,764	8,233	4,843	11,614	8,775
6	Repairs, maintenance and alterations	10,213	12,776	14,397	8,230	10,248	10,285
7	Machinery and equipment	21,249	33,537	38,888	19,802	33,288	191,052
8	New investment, replacements and major improvements	12,922	21,367	25,284	11,588	22,493	178,811
9	Repairs, maintenance and alterations	8,327	12,170	13,604	8,214	10,795	12,241
10	Gross investment and maintenance	158,839	257,093	302,192	145,275	261,451	579,000
11	New investment, replacements and major improvements	97,494	167,477	208,016	88,048	183,533	500,496
12	Repairs, maintenance and alterations	61,345	89,616	94,176	57,227	77,918	78,504

TABLE 16c—GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT
EXPENDITURES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance	158,839	257,093	302,192	145,275	261,451	579,000
2	All other government expenditures	574,243	623,779	673,281	861,091	990,272	1,864,098
3	Total Public Expenditure through Government, Capital and Current Accounts (Items 1 and 2)	733,082	880,872	975,473	1,006,366	1,251,723	2,443,098
4	Adjustment for inter-governmental transfer payments	28,230	34,410	45,997	96,145	151,147	120,534
5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4)	704,852	846,462	929,476	(1) 910,221	(1) 1,100,576	(1) 2,322,564

(1) As per Table 10 of Comparative Statistics of Public Finance.

ALL GOVERNMENTS

TABLE 16d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	64.8	67.7	71.6	63.2	72.1	83.7
3	Repairs, maintenance and alterations.....	35.2	32.3	28.4	36.8	27.9	16.3
4	Natural resources.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	24.3	34.6	36.4	37.0	53.1	46.0
6	Repairs, maintenance and alterations.....	75.7	65.4	63.6	63.0	46.9	54.0
7	Machinery and equipment.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	60.8	63.7	65.0	58.5	67.6	93.6
9	Repairs, maintenance and alterations.....	39.2	36.3	35.0	41.5	32.4	6.4
10	Gross investment and maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	61.4	65.1	68.8	60.6	70.2	86.4
12	Repairs, maintenance and alterations.....	38.6	34.9	31.2	39.4	29.8	13.6

TABLE 16e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	21.7	29.2	31.0	14.4	20.9	23.7
2	All other government expenditures.....	78.3	70.8	69.0	85.6	79.1	76.3
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 16f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	12.96	20.13	23.34	10.58	18.86	30.82
2	New investment, replacements and major improvements.....	8.39	13.63	16.72	6.68	13.60	25.80
3	Repairs, maintenance and alterations.....	4.57	6.50	6.62	3.90	5.26	5.02
4	Natural resources.....	1.43	1.95	2.22	1.23	1.98	1.65
5	New investment, replacements and major improvements.....	.35	.68	.81	.46	1.05	.76
6	Repairs, maintenance and alterations.....	1.08	1.27	1.41	.77	.93	.89
7	Machinery and equipment.....	2.25	3.34	3.81	1.86	3.01	16.60
8	New investment, replacements and major improvements.....	1.37	2.13	2.48	1.09	2.03	15.54
9	Repairs, maintenance and alterations.....	.88	1.21	1.33	.77	.98	1.06
10	Gross investment and maintenance.....	16.81	25.63	29.60	13.66	23.67	50.32
11	New investment, replacements and major improvements.....	10.32	16.70	20.38	8.28	16.62	43.50
12	Repairs, maintenance and alterations.....	6.49	8.93	9.22	5.38	7.05	6.82

DOMINION OF CANADA

TABLE 17a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS, 1926-1941
(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges	598	1,370	3,323	2,519	1,401	352
2	Buildings and grounds	4,404	10,459	18,066	6,592	10,629	183,369
3	Water mains, sewers, dams and reservoirs	65	611	615	109	483	519
4	Docks, wharves, rivers, canals, dredging, etc.	24,362	33,854	36,640	12,960	13,803	6,883
5	Other	4,767	12,915	16,476	5,135	4,846	40,114
6	Public construction (Items 1 to 5)	34,196	59,209	75,120	27,315	31,162	231,237
7	Planning and administrative expenses	2,736	4,737	6,010	2,185	2,493	18,700
8	Public works (Items 6 and 7)	36,932	63,946	81,130	29,500	33,655	249,937
9	Natural resources	6,556	8,979	8,859	4,914	7,219	7,462
10	Machinery and equipment	5,095	8,822	11,268	3,345	11,507	170,103
11	Sub-total (Items 8 to 10)	48,583	81,747	101,257	37,759	52,381	427,502
12	Duplications	1,162	1,804	2,593	1,861	3,563	3,500
13	GROSS INVESTMENT AND MAINTENANCE (Item 11 less 12)	47,421	79,943	98,664	35,898	48,818	424,002

TABLE 17b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941
(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction	34,196	59,209	75,120	27,315	31,162	231,237
2	New investment, replacements and major improvements	28,617	45,888	63,235	21,086	22,043	226,878
3	Repairs, maintenance and alterations	5,579	13,321	11,885	6,229	9,119	4,359
4	Natural resources	6,556	8,979	8,859	4,914	7,219	7,462
5	New investment, replacements and major improvements	1,006	3,168	3,217	2,424	4,005	4,834
6	Repairs, maintenance and alterations	5,550	5,811	5,642	2,490	3,214	2,628
7	Machinery and equipment	5,095	8,822	11,268	3,345	11,507	170,103
8	New investment, replacements and major improvements	3,765	6,519	8,327	2,163	8,610	168,429
9	Repairs, maintenance and alterations	1,330	2,303	2,941	1,182	2,897	1,674
10	Gross investment and maintenance	47,421	79,943	98,664	35,898	48,818	424,002
11	New investment, replacements and major improvements	35,416	58,480	78,772	26,256	34,622	415,868
12	Repairs, maintenance and alterations	12,005	21,463	19,892	9,642	14,196	8,134

TABLE 17c—GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941
(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance	47,421	79,943	98,664	35,898	48,818	424,002
2	All other government expenditures	255,993	257,157	276,082	371,895	419,587	1,333,137
3	Total Public Expenditure through Government, Capital and Current Accounts (Items 1 and 2)	303,414	337,100	374,746	407,793	468,405	1,757,139
4	Adjustment for inter-governmental transfer payments	12,517	14,097	19,036	18,206	23,806	38,352
5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4)	290,897	323,003	355,710	(1)389,587	(1)444,599	(1)1,718,787

(1) As per Table 10 of Comparative Statistics of Public Finance.

DOMINION OF CANADA

TABLE 17d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE
CLASSIFICATION, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	83.7	77.5	84.2	77.2	70.7	98.1
3	Repairs, maintenance and alterations.....	16.3	22.5	15.8	22.8	29.3	1.9
4	Natural resources.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	15.3	35.3	36.3	49.3	55.5	64.8
6	Repairs, maintenance and alterations.....	84.7	64.7	63.7	50.7	44.5	35.2
7	Machinery and equipment.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	73.9	73.9	73.9	64.7	74.8	99.0
9	Repairs, maintenance and alterations.....	26.1	26.1	26.1	35.3	25.2	1.0
10	Gross investment and maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	74.7	73.2	79.8	73.1	70.9	98.1
12	Repairs, maintenance and alterations.....	25.3	26.8	20.2	26.9	29.1	1.9

TABLE 17e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER
GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	15.6	23.7	26.3	8.8	10.4	24.1
2	All other government expenditures.....	84.4	76.3	73.7	91.2	89.6	75.9
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 17f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE
CLASSIFICATION, SELECTED YEARS, 1926-1941
(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	3.62	5.90	7.36	2.57	2.82	20.10
2	New investment, replacements and major improvements.....	3.03	4.57	6.19	1.98	2.00	19.72
3	Repairs, maintenance and alterations.....	0.59	1.33	1.17	0.59	0.82	0.38
4	Natural resources.....	0.69	0.90	0.87	0.46	0.65	0.65
5	New investment, replacements and major improvements.....	0.10	0.32	0.32	0.23	0.36	0.42
6	Repairs, maintenance and alterations.....	0.59	0.58	0.55	0.23	0.29	0.23
7	Machinery and equipment.....	0.54	0.88	1.10	0.31	1.04	14.78
8	New investment, replacements and major improvements.....	0.40	0.65	0.82	0.20	0.78	14.64
9	Repairs, maintenance and alterations.....	0.14	0.23	0.28	0.11	0.26	0.14
10	Gross investment and maintenance.....	5.02	7.97	9.67	3.38	4.42	36.85
11	New investment, replacements and major improvements.....	3.75	5.83	7.72	2.47	3.13	36.14
12	Repairs, maintenance and alterations.....	1.27	2.14	1.95	0.91	1.29	0.71

ALL PROVINCIAL GOVERNMENTS

TABLE 18a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS,
1926-1941
(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges.....	31,250	58,578	74,232	30,233	113,287	59,951
2	Buildings and grounds.....	6,441	11,658	12,653	4,128	7,932	6,450
3	Water mains, sewers, dams and reservoirs.....	48	446	229	16	697	732
4	Docks, wharves, rivers, canals, dredging, etc.....	63	54	199	45	39	175
5	Other.....	1,259	2,932	4,799	1,357	3,828	3,598
6	Public construction (Items 1 to 5).....	39,061	73,668	92,112	35,779	125,783	70,906
7	Planning and administrative expenses.....	3,125	5,894	7,369	2,861	10,063	5,673
8	Public works (Items 6 and 7).....	42,186	79,562	99,481	38,640	135,846	76,579
9	Natural resources.....	6,938	10,561	13,771	8,159	14,643	11,598
10	Machinery and equipment.....	2,525	5,602	7,953	2,774	7,567	6,398
11	Sub-total (Items 8 to 10).....	51,649	95,725	121,205	49,573	158,056	94,575
12	Duplications.....	1,879	5,032	6,640	2,091	9,719	5,397
13	GROSS INVESTMENT AND MAINTENANCE (Item 11 less 12).....	49,770	90,693	114,565	47,482	148,337	89,178

TABLE 18b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION,
SELECTED YEARS, 1926-1941
(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	39,061	73,668	92,112	35,779	125,783	70,906
2	New investment, replacements and major improve- ments.....	24,136	51,451	67,708	23,164	100,307	46,305
3	Repairs, maintenance and alterations.....	14,925	22,217	24,404	12,615	25,476	24,601
4	Natural resources.....	6,938	10,561	13,771	8,159	14,643	11,598
5	New investment, replacements and major improve- ments.....	2,275	3,596	5,016	2,419	7,609	3,941
6	Repairs, maintenance and alterations.....	4,663	6,965	8,755	5,740	7,034	7,657
7	Machinery and equipment.....	2,525	5,602	7,953	2,774	7,567	6,398
8	New investment, replacements and major improve- ments.....	1,797	3,954	5,943	1,995	6,165	3,819
9	Repairs, maintenance and alterations.....	728	1,648	2,010	779	1,402	2,579
10	Gross investment and maintenance.....	49,770	90,693	114,565	47,482	148,337	89,178
11	New investment, replacements and major improve- ments.....	28,788	59,717	79,425	28,183	113,998	54,943
12	Repairs, maintenance and alterations.....	20,982	30,976	35,140	19,299	34,339	34,235

TABLE 18c—GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT
EXPENDITURES, SELECTED YEARS, 1926-1941
(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	49,770	90,693	114,565	47,482	148,337	89,178
2	All other government expenditures.....	108,212	138,183	155,082	192,621	258,542	265,985
3	Total Public Expenditure through Government, Capital and Current Accounts (Items 1 and 2).....	157,982	228,876	269,647	240,103	406,879	355,163
4	Adjustment for inter-governmental transfer payments..	1,356	2,564	9,213	21,239	47,190	43,903
5	TOTAL PUBLIC EXPENDITURE BY GOVERN- MENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4).....	156,626	226,312	260,434	(1) 218,864	(1) 359,689	(1) 311,260

(1) As per Table 10 of Comparative Statistics of Public Finance.

ALL PROVINCIAL GOVERNMENTS

TABLE 18d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	61.8	69.8	73.5	64.7	79.7	65.3
3	Repairs, maintenance and alterations.....	38.2	30.2	26.5	35.3	20.3	34.7
4	Natural resources.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	32.8	34.0	36.4	29.6	52.0	34.0
6	Repairs, maintenance and alterations.....	67.2	66.0	63.6	70.4	48.0	66.0
7	Machinery and equipment.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	71.2	70.6	74.7	71.9	81.5	59.7
9	Repairs, maintenance and alterations.....	28.8	29.4	25.3	28.1	18.5	40.3
10	Gross investment and maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	57.8	65.8	69.3	59.4	76.9	61.6
12	Repairs, maintenance and alterations.....	42.2	34.2	30.7	40.6	23.1	38.4

TABLE 18e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	31.5	39.6	42.5	19.8	36.5	25.1
2	All other government expenditures.....	68.5	60.4	57.5	80.2	63.5	74.9
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 18f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941
(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	4.14	7.35	9.02	3.37	11.39	6.16
2	New investment, replacements and major improvements.....	2.56	5.13	6.63	2.18	9.08	4.02
3	Repairs, maintenance and alterations.....	1.58	2.22	2.39	1.19	2.31	2.14
4	Natural resources.....	0.73	1.05	1.35	0.77	1.33	1.01
5	New investment, replacements and major improvements.....	0.24	0.36	0.49	0.23	0.69	0.34
6	Repairs, maintenance and alterations.....	0.49	0.69	0.86	0.54	0.64	0.67
7	Machinery and equipment.....	0.27	0.56	0.78	0.26	0.69	0.56
8	New investment, replacements and major improvements.....	0.19	0.39	0.58	0.19	0.56	0.33
9	Repairs, maintenance and alterations.....	0.08	0.17	0.20	0.07	0.13	0.23
10	Gross investment and maintenance.....	5.27	9.04	11.22	4.47	13.43	7.75
11	New investment, replacements and major improvements.....	3.05	5.95	7.78	2.65	10.32	4.77
12	Repairs, maintenance and alterations.....	2.22	3.09	3.44	1.82	3.11	2.98

PRINCE EDWARD ISLAND

TABLE 19a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges.....	136	392	447	229	746	362
2	Buildings and grounds.....	23	20	18	264	79	109
3	Water mains, sewers, dams and reservoirs.....						
4	Docks, wharves, rivers, canals, dredging, etc.....	7	7	9	2	3	4
5	Other.....	18	43	64	47	55	94
6	Public construction (Items 1 to 5).....	184	462	538	542	883	569
7	Planning and administrative expenses.....	15	37	43	43	71	46
8	Public works (Items 6 and 7).....	199	499	581	585	954	615
9	Natural resources.....					90	1
10	Machinery and equipment.....	25	41	51	32	58	42
11	Sub-total (Items 8 to 10).....	224	540	632	617	1,102	658
12	Duplications.....	18	31	37	26	80	36
13	GROSS INVESTMENT AND MAINTENANCE (Item 11 less 12).....	206	509	595	591	1,022	622

TABLE 19b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	184	462	538	542	883	569
2	New investment, replacements and major improvements.....	64	250	300	326	532	261
3	Repairs, maintenance and alterations.....	120	212	238	216	351	308
4	Natural resources.....					90	1
5	New investment, replacements and major improvements.....					26	
6	Repairs, maintenance and alterations.....					64	1
7	Machinery and equipment.....	25	41	51	32	58	42
8	New investment, replacements and major improvements.....	2	16	19	30	34	16
9	Repairs, maintenance and alterations.....	23	25	32	2	24	26
10	Gross investment and maintenance.....	206	509	595	591	1,022	622
11	New investment, replacements and major improvements.....	72	278	335	358	578	288
12	Repairs, maintenance and alterations.....	134	231	260	233	444	334

TABLE 19c—GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	206	509	595	591	1,022	622
2	All other government expenditures.....	654	784	816	920	1,097	1,610
3	Total Public Expenditure through Government, Capital and Current Accounts (Items 1 and 2).....	860	1,293	1,411	1,511	2,119	2,232
4	Adjustment for inter-governmental transfer payments.....			21	77	192	328
5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4).....	860	1,293	1,390	(1)1,434	(1)1,927	(1)1,904

(1) As per Table 10 of Comparative Statistics of Public Finance.

PRINCE EDWARD ISLAND

TABLE 19d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements	34.8	54.1	55.8	60.1	60.2	45.9
3	Repairs, maintenance and alterations	65.2	45.9	44.2	39.9	39.8	54.1
4	Natural resources					100.0	100.0
5	New investment, replacements and major improvements					28.9	
6	Repairs, maintenance and alterations					71.1	100.0
7	Machinery and equipment	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements	8.0	39.1	37.3	93.8	58.6	38.1
9	Repairs, maintenance and alterations	92.0	60.9	62.7	6.2	41.4	61.9
10	Gross investment and maintenance	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements	35.0	54.6	56.3	60.6	56.6	46.3
12	Repairs, maintenance and alterations	65.0	45.4	43.7	39.4	43.4	53.7

TABLE 19e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance	24.0	39.4	42.2	39.1	48.2	27.9
2	All other government expenditures	76.0	60.6	57.8	60.9	51.8	72.1
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2)	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 19f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction	2.11	5.25	6.11	6.02	9.49	5.99
2	New investment, replacements and major improvements	0.73	2.84	3.41	3.62	5.72	2.75
3	Repairs, maintenance and alterations	1.38	2.41	2.70	2.40	3.77	3.24
4	Natural resources					0.97	0.01
5	New investment, replacements and major improvements					0.28	
6	Repairs, maintenance and alterations					0.69	0.01
7	Machinery and equipment	0.29	0.47	0.58	0.36	0.62	0.44
8	New investment, replacements and major improvements	0.02	0.18	0.22	0.33	0.37	0.17
9	Repairs, maintenance and alterations	0.27	0.29	0.36	0.03	0.25	0.27
10	Gross investment and maintenance	2.37	5.78	6.76	6.57	10.99	6.55
11	New investment, replacements and major improvements	0.83	3.16	3.81	3.98	6.22	3.03
12	Repairs, maintenance and alterations	1.54	2.62	2.95	2.59	4.77	3.52

NOVA SCOTIA

TABLE 20a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges	1,815	2,285	4,439	4,266	11,258	3,039
2	Buildings and grounds	165	99	336	186	256	16
3	Water mains, sewers, dams and reservoirs					1	
4	Docks, wharves, rivers, canals, dredging, etc.						
5	Other	81	17	47	54	41	
6	Public construction (Items 1 to 5)	2,061	2,401	4,822	4,506	11,556	3,055
7	Planning and administrative expenses	165	192	386	360	924	244
8	Public works (Items 6 and 7)	2,226	2,593	5,208	4,866	12,480	3,299
9	Natural resources	122	205	247	183	188	132
10	Machinery and equipment	309	295	486	221	434	565
11	Sub-total (Items 8 to 10)	2,657	3,093	5,941	5,270	13,102	3,996
12	Duplications	151	178	312	131	356	402
13	GROSS INVESTMENT AND MAINTENANCE (Item 11 less 12)	2,506	2,915	5,629	5,139	12,746	3,594

TABLE 20b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction	2,061	2,401	4,822	4,506	11,556	3,055
2	New investment, replacements and major improvements	441	644	2,848	2,840	9,971	719
3	Repairs, maintenance and alterations	1,620	1,757	1,974	1,666	1,585	2,336
4	Natural resources	122	205	247	183	188	132
5	New investment, replacements and major improvements	57	60	51	11	86	17
6	Repairs, maintenance and alterations	65	145	196	172	102	115
7	Machinery and equipment	309	295	486	221	434	565
8	New investment, replacements and major improvements	184	150	427	172	333	124
9	Repairs, maintenance and alterations	125	145	59	49	101	441
10	Gross investment and maintenance	2,506	2,915	5,629	5,139	12,746	3,594
11	New investment, replacements and major improvements	653	830	3,255	3,133	10,879	882
12	Repairs, maintenance and alterations	1,853	2,085	2,374	2,006	1,867	2,712

TABLE 20c—GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance	2,506	2,915	5,629	5,139	12,746	3,594
2	All other government expenditures	3,587	4,801	3,486	5,990	8,958	11,912
3	Total Public Expenditures through Government, Capital and Current Accounts (Items 1 and 2) ..	6,093	7,716	9,115	11,129	21,704	15,506
4	Adjustment for inter-governmental transfer payments ..	44	44	131	52	2,463	2,299
5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4)	6,049	7,672	8,984	(1)11,077	(1)19,241	(1)13,207

(1) As per Table 10 of Comparative Statistics of Public Finance.

NOVA SCOTIA

TABLE 20d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	21.4	26.8	59.1	63.0	86.3	23.5
3	Repairs, maintenance and alterations.....	78.6	73.2	40.9	37.0	13.7	76.5
4	Natural resources.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	46.7	29.3	20.6	6.0	45.7	12.9
6	Repairs, maintenance and alterations.....	53.3	70.7	79.4	94.0	54.3	87.1
7	Machinery and equipment.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	59.5	50.8	87.9	77.8	76.7	21.9
9	Repairs, maintenance and alterations.....	40.5	49.2	12.1	22.2	23.3	78.1
10	Gross investment and maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	26.1	28.5	57.8	61.0	85.4	24.5
12	Repairs, maintenance and alterations.....	73.9	71.5	42.2	39.0	14.6	75.5

TABLE 20e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	41.1	37.8	61.8	46.2	58.7	23.2
2	All other government expenditures.....	58.9	62.2	38.2	53.8	41.3	76.8
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 20f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	4.00	4.66	9.38	8.58	21.05	5.28
2	New investment, replacements and major improvements.....	0.86	1.25	5.54	5.41	18.16	1.24
3	Repairs, maintenance and alterations.....	3.14	3.41	3.84	3.17	2.89	4.04
4	Natural resources.....	0.24	0.40	0.48	0.35	0.34	0.23
5	New investment, replacements and major improvements.....	0.11	0.12	0.10	0.02	0.16	0.03
6	Repairs, maintenance and alterations.....	0.13	0.28	0.38	0.33	0.18	0.20
7	Machinery and equipment.....	0.60	0.57	0.94	0.42	0.79	0.98
8	New investment, replacements and major improvements.....	0.36	0.29	0.83	0.33	0.61	0.22
9	Repairs, maintenance and alterations.....	0.24	0.28	0.11	0.09	0.18	0.76
10	Gross investment and maintenance.....	4.87	5.66	10.95	9.79	23.22	6.22
11	New investment, replacements and major improvements.....	1.27	1.61	6.33	5.97	19.82	1.53
12	Repairs, maintenance and alterations.....	3.60	4.05	4.62	3.82	3.40	4.69

NEW BRUNSWICK

TABLE 21a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges.....	2,326	5,667	8,008	1,332	11,122	2,239
2	Buildings and grounds.....	142	441	634	184	84	119
3	Water mains, sewers, dams and reservoirs.....						
4	Docks, wharves, rivers, canals, dredging, etc.....	2	3				
5	Other.....	149	565	137	4	59	26
6	Public construction (Items 1 to 5).....	2,619	6,676	8,779	1,520	11,265	2,384
7	Planning and administrative expenses.....	210	534	702	122	901	191
8	Public works (Items 6 and 7).....	2,829	7,210	9,481	1,642	12,166	2,575
9	Natural resources.....	157	247	298	268	369	338
10	Machinery and equipment.....	94	570	891	80	428	452
11	Sub-total (Items 8 to 10).....	3,080	8,027	10,670	1,990	12,963	3,365
12	Duplications.....	49	442	772	59	340	248
13	GROSS INVESTMENT AND MAINTENANCE (Item 11 less 12).....	3,031	7,585	9,898	1,931	12,623	3,117

TABLE 21b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	2,619	6,676	8,779	1,520	11,265	2,384
2	New investment, replacements and major improvements.....	1,829	4,796	6,838	842	10,257	1,150
3	Repairs, maintenance and alterations.....	790	1,880	1,941	678	1,008	1,234
4	Natural resources.....	157	247	298	268	369	338
5	New investment, replacements and major improvements.....	4	24	23	73	71	32
6	Repairs, maintenance and alterations.....	153	223	275	195	298	306
7	Machinery and equipment.....	94	570	891	80	428	452
8	New investment, replacements and major improvements.....	59	328	749	36	331	272
9	Repairs, maintenance and alterations.....	35	242	142	44	97	180
10	Gross investment and maintenance.....	3,031	7,585	9,898	1,931	12,623	3,117
11	New investment, replacements and major improvements.....	2,024	5,327	7,525	999	11,245	1,471
12	Repairs, maintenance and alterations.....	1,007	2,258	2,373	932	1,378	1,646

TABLE 21c—GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	3,031	7,585	9,898	1,931	12,623	3,117
2	All other government expenditures.....	2,586	3,955	3,981	4,672	5,919	9,038
3	Total Public Expenditures through Government, Capital and Current Accounts (Items 1 and 2).....	5,617	11,540	13,879	6,603	18,542	12,155
4	Adjustment for inter-governmental transfer payments..	66	61	305	75	1,326	1,935
5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4).....	5,551	11,479	13,574	(1)6,528	(1)17,216	(1)10,220

(1) As per Table 10 of Comparative Statistics of Public Finance.

NEW BRUNSWICK

TABLE 21d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	69.8	71.8	77.9	55.4	91.1	48.2
3	Repairs, maintenance and alterations.....	30.2	28.2	22.1	44.6	8.9	51.8
4	Natural resources.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	2.5	9.7	7.7	27.2	19.2	9.5
6	Repairs, maintenance and alterations.....	97.5	90.3	92.3	72.8	80.8	90.5
7	Machinery and equipment.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	62.8	57.5	84.1	45.0	77.3	60.2
9	Repairs, maintenance and alterations.....	37.2	42.5	15.9	55.0	22.7	39.8
10	Gross investment and maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	66.8	70.2	76.0	51.7	89.1	47.2
12	Repairs, maintenance and alterations.....	33.2	29.8	24.0	48.3	10.9	52.8

TABLE 21e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	54.0	65.7	71.3	29.2	68.1	25.6
2	All other government expenditures.....	46.0	34.3	28.7	70.8	31.9	74.4
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 21f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941
(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	6.61	16.52	21.62	3.63	25.78	5.22
2	New investment, replacements and major improvements.....	4.62	11.87	16.84	2.01	23.47	2.52
3	Repairs, maintenance and alterations.....	1.99	4.65	4.78	1.62	2.31	2.70
4	Natural resources.....	0.40	0.61	0.73	0.64	0.84	0.74
5	New investment, replacements and major improvements.....	0.01	0.06	0.05	0.17	0.16	0.07
6	Repairs, maintenance and alterations.....	0.39	0.55	0.68	0.47	0.68	0.67
7	Machinery and equipment.....	0.24	1.41	2.19	0.19	0.98	0.99
8	New investment, replacements and major improvements.....	0.15	0.81	1.84	0.08	0.76	0.60
9	Repairs, maintenance and alterations.....	0.09	0.60	0.35	0.11	0.22	0.39
10	Gross investment and maintenance.....	7.65	18.77	24.38	4.61	28.88	6.82
11	New investment, replacements and major improvements.....	5.11	13.18	18.53	2.38	25.73	3.22
12	Repairs, maintenance and alterations.....	2.54	5.59	5.85	2.23	3.15	3.60

QUEBEC

TABLE 22a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges.....	6,675	12,000	12,473	9,818	36,577	17,605
2	Buildings and grounds.....	1,439	2,065	2,275	861	1,988	3,264
3	Water mains, sewers, dams and reservoirs.....		86	146			694
4	Docks, wharves, rivers, canals, dredging, etc.....	2	28	1	7		
5	Other.....	90	184	328	237	590	2,664
6	Public construction (Items 1 to 5).....	8,206	14,363	15,223	10,923	39,155	24,227
7	Planning and administrative expenses.....	656	1,149	1,218	874	3,132	1,938
8	Public works (Items 6 and 7).....	8,862	15,512	16,441	11,797	42,287	26,165
9	Natural resources.....	2,343	3,355	4,438	3,338	4,781	4,176
10	Machinery and equipment.....	569	1,240	2,084	771	2,700	1,891
11	Sub-total (Items 8 to 10).....	11,774	20,107	22,963	15,906	49,768	32,232
12	Duplications.....	808	1,381	1,816	1,022	3,126	2,005
13	GROSS INVESTMENT AND MAINTENANCE (Item 11 less 12).....	10,966	18,726	21,147	14,884	46,642	30,227

TABLE 22b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	8,206	14,363	15,223	10,923	39,155	24,227
2	New investment, replacements and major improvements.....	3,105	8,286	8,505	6,720	31,951	17,070
3	Repairs, maintenance and alterations.....	5,101	6,077	6,718	4,203	7,204	7,157
4	Natural resources.....	2,343	3,355	4,438	3,338	4,781	4,176
5	New investment, replacements and major improvements.....	1,001	1,078	1,547	1,331	2,860	1,919
6	Repairs, maintenance and alterations.....	1,342	2,277	2,891	2,007	1,921	2,257
7	Machinery and equipment.....	569	1,240	2,084	771	2,700	1,891
8	New investment, replacements and major improvements.....	452	819	1,480	521	2,260	984
9	Repairs, maintenance and alterations.....	117	421	604	250	440	907
10	Gross investment and maintenance.....	10,966	18,726	21,147	14,884	46,642	30,227
11	New investment, replacements and major improvements.....	4,113	10,311	11,234	8,575	37,036	20,216
12	Repairs, maintenance and alterations.....	6,853	8,415	9,913	6,309	9,606	10,011

TABLE 22c—GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	10,966	18,726	21,147	14,884	46,642	30,227
2	All other government expenditures.....	21,396	31,046	31,789	37,677	53,564	70,206
3	Total Public Expenditure through Government, Capital and Current Accounts (Items 1 and 2).....	32,362	49,772	52,936	52,561	100,206	100,433
4	Adjustment for inter-governmental transfer payments..	501	266	461	2,997	11,793	12,927
5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4).....	31,861	49,506	52,475	(1)49,564	(1)88,413	(1)87,506

(1) As per Table 10 of Comparative Statistics of Public Finance.

QUEBEC

TABLE 22d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	37.8	57.7	55.9	61.5	81.6	70.5
3	Repairs, maintenance and alterations.....	62.2	42.3	44.1	38.5	18.4	29.5
4	Natural resources.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	42.7	32.1	34.9	39.9	59.8	46.0
6	Repairs, maintenance and alterations.....	57.3	67.9	65.1	60.1	40.2	54.0
7	Machinery and equipment.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	79.4	66.0	71.0	67.6	83.7	52.0
9	Repairs, maintenance and alterations.....	20.6	34.0	29.0	32.4	16.3	48.0
10	Gross investment and maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	37.5	55.1	53.1	57.6	79.4	66.9
12	Repairs, maintenance and alterations.....	62.5	44.9	46.9	42.4	20.6	33.1

TABLE 22e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	33.9	37.6	39.9	28.3	46.5	30.1
2	All other government expenditures.....	66.1	62.4	60.1	71.7	53.5	69.9
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 22f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	3.15	5.18	5.39	3.67	12.46	7.27
2	New investment, replacements and major improvements.....	1.19	2.99	3.01	2.26	10.17	5.12
3	Repairs, maintenance and alterations.....	1.96	2.19	2.38	1.41	2.29	2.15
4	Natural resources.....	0.90	1.21	1.57	1.12	1.52	1.25
5	New investment, replacements and major improvements.....	0.38	0.39	0.55	0.45	0.91	0.57
6	Repairs, maintenance and alterations.....	0.52	0.82	1.02	0.67	0.61	0.68
7	Machinery and equipment.....	0.22	0.45	0.73	0.26	0.86	0.57
8	New investment, replacements and major improvements.....	0.17	0.30	0.52	0.18	0.72	0.30
9	Repairs, maintenance and alterations.....	0.05	0.15	0.21	0.08	0.14	0.27
10	Gross investment and maintenance.....	4.21	6.76	7.49	5.01	14.85	9.07
11	New investment, replacements and major improvements.....	1.58	3.72	3.98	2.89	11.79	6.07
12	Repairs, maintenance and alterations.....	2.63	3.04	3.51	2.12	3.06	3.00

ONTARIO

TABLE 23a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges.....	10,407	17,017	20,763	10,760	38,534	27,702
2	Buildings and grounds.....	2,813	1,844	3,036	1,655	3,400	762
3	Water mains, sewers, dams and reservoirs.....	4	360	54	1	62	15
4	Docks, wharves, rivers, canals, dredging, etc.....			31	3		158
5	Other.....	119	336	712	168	223	220
6	Public construction (Items 1 to 5).....	13,343	19,557	24,596	12,587	42,219	28,857
7	Planning and administrative expenses.....	1,067	1,565	1,968	1,007	3,378	2,309
8	Public works (Items 6 and 7).....	14,410	21,122	26,564	13,594	45,597	31,166
9	Natural resources.....	2,376	3,821	4,394	2,382	3,386	2,990
10	Machinery and equipment.....	620	1,051	1,700	884	1,949	1,520
11	Sub-total (Items 8 to 10).....	17,406	25,994	32,658	16,860	50,932	35,676
12	Duplications.....	323	1,073	1,351	479	2,092	1,555
13	GROSS INVESTMENT AND MAINTENANCE (Item 11 less 12).....	17,083	24,921	31,307	16,381	48,840	34,121

TABLE 23b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	13,343	19,557	24,596	12,587	42,219	28,857
2	New investment, replacements and major improvements.....	10,752	15,609	19,875	10,575	33,621	22,436
3	Repairs, maintenance and alterations.....	2,591	3,948	4,721	2,012	8,598	6,421
4	Natural resources.....	2,376	3,821	4,394	2,382	3,386	2,990
5	New investment, replacements and major improvements.....	547	1,471	1,472	572	1,308	819
6	Repairs, maintenance and alterations.....	1,829	2,350	2,922	1,810	2,078	2,171
7	Machinery and equipment.....	620	1,051	1,700	884	1,949	1,520
8	New investment, replacements and major improvements.....	507	936	1,193	749	1,623	1,062
9	Repairs, maintenance and alterations.....	113	115	507	135	326	458
10	Gross investment and maintenance.....	17,083	24,921	31,307	16,381	48,840	34,121
11	New investment, replacements and major improvements.....	12,455	18,315	23,339	12,401	37,586	25,261
12	Repairs, maintenance and alterations.....	4,628	6,606	7,968	3,980	11,254	8,860

TABLE 23c—GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	17,083	24,921	31,307	16,381	48,840	34,121
2	All other government expenditures.....	34,983	43,256	54,278	68,229	88,710	92,049
3	Total Public Expenditure through Government, Capital and Current Accounts (Items 1 and 2).....	52,066	68,177	85,585	84,610	137,550	126,170
4	Adjustment for inter-governmental transfer payments..	459	272	4,610	12,024	20,535	16,192
5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4).....	51,607	67,905	80,975	(1)72,586	(1)117,015	(1)109,978

(1) As per Table 10 of Comparative Statistics of Public Finance.

ONTARIO

TABLE 23d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	80.6	79.8	80.8	84.0	79.6	77.7
3	Repairs, maintenance and alterations.....	19.4	20.2	19.2	16.0	20.4	22.3
4	Natural resources.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	23.0	38.5	33.5	24.0	38.6	27.4
6	Repairs, maintenance and alterations.....	77.0	61.5	66.5	76.0	61.4	72.6
7	Machinery and equipment.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	81.8	89.1	70.2	84.7	83.3	69.9
9	Repairs, maintenance and alterations.....	18.2	10.9	29.8	15.3	16.7	30.1
10	Gross investment and maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	72.9	73.5	74.5	75.7	77.0	74.0
12	Repairs, maintenance and alterations.....	27.1	26.5	25.5	24.3	23.0	26.0

TABLE 23e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	32.8	36.6	36.6	19.4	35.5	27.0
2	All other government expenditures.....	67.2	63.4	63.4	80.6	64.5	73.0
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 23f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941
(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	4.22	5.86	7.26	3.58	11.61	7.62
2	New investment, replacements and major improvements.....	3.40	4.68	5.87	3.01	9.24	5.92
3	Repairs, maintenance and alterations.....	0.82	1.18	1.39	0.57	2.37	1.70
4	Natural resources.....	0.75	1.15	1.30	0.68	0.93	0.79
5	New investment, replacements and major improvements.....	0.17	0.44	0.44	0.16	0.36	0.22
6	Repairs, maintenance and alterations.....	0.58	0.71	0.86	0.52	0.57	0.57
7	Machinery and equipment.....	0.20	0.31	0.50	0.25	0.54	0.40
8	New investment, replacements and major improvements.....	0.16	0.28	0.35	0.21	0.45	0.28
9	Repairs, maintenance and alterations.....	0.04	0.03	0.15	0.04	0.09	0.12
10	Gross investment and maintenance.....	5.40	7.47	9.24	4.66	13.43	9.01
11	New investment, replacements and major improvements.....	3.94	5.49	6.89	3.53	10.34	6.67
12	Repairs, maintenance and alterations.....	1.46	1.98	2.35	1.13	3.09	2.34

MANITOBA

TABLE 24a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges.....	670	3,098	3,444	631	2,004	920
2	Buildings and grounds.....	282	710	763	130	249	302
3	Water mains, sewers, dams and reservoirs.....			22	4	366	8
4	Docks, wharves, rivers, canals, dredging, etc.....		2	58		5	
5	Other.....	261	513	214	26	341	59
6	Public construction (Items 1 to 5).....	1,213	4,323	4,501	791	2,965	1,289
7	Planning and administrative expenses.....	97	346	360	63	237	103
8	Public works (Items 6 and 7).....	1,310	4,669	4,861	854	3,202	1,392
9	Natural resources.....	278	509	548	365	1,130	640
10	Machinery and equipment.....	96	379	462	187	457	463
11	Sub-total (Items 8 to 10).....	1,684	5,557	5,871	1,406	4,789	2,495
12	Duplications.....	287	752	617	82	900	319
13	GROSS INVESTMENT AND MAINTENANCE (Item 11 less 12).....	1,397	4,805	5,254	1,324	3,889	2,176

TABLE 24b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	1,213	4,323	4,501	791	2,965	1,289
2	New investment, replacements and major improvements.....	886	2,990	3,516	238	2,252	334
3	Repairs, maintenance and alterations.....	327	1,333	985	553	713	955
4	Natural resources.....	278	509	548	365	1,130	640
5	New investment, replacements and major improvements.....	248	470	336	90	768	164
6	Repairs, maintenance and alterations.....	30	39	212	275	362	476
7	Machinery and equipment.....	96	379	462	187	457	463
8	New investment, replacements and major improvements.....	70	219	272	158	427	425
9	Repairs, maintenance and alterations.....	26	160	190	29	30	38
10	Gross investment and maintenance.....	1,397	4,805	5,254	1,324	3,889	2,176
11	New investment, replacements and major improvements.....	1,006	3,306	3,963	444	2,755	678
12	Repairs, maintenance and alterations.....	391	1,499	1,291	880	1,134	1,498

TABLE 24c—GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	1,397	4,805	5,254	1,324	3,889	2,176
2	All other government expenditures.....	8,711	10,519	12,420	15,802	14,592	15,160
3	Total Public Expenditure through Government, Capital and Current Accounts (Items 1 and 2).....	10,108	15,324	17,674	17,126	18,481	17,336
4	Adjustment for inter-governmental transfer payments.....	33	640	1,010	1,602	2,069	2,228
5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4).....	10,075	14,684	16,664	(1)15,524	(1)16,412	(1)15,108

(1) As per Table 10 of Comparative Statistics of Public Finance.

MANITOBA

TABLE 24d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	73.0	69.2	78.1	30.1	76.0	25.9
3	Repairs, maintenance and alterations.....	27.0	30.8	21.9	69.9	24.0	74.1
4	Natural resources.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	89.2	92.3	61.3	24.7	68.0	25.6
6	Repairs, maintenance and alterations.....	10.8	7.7	38.7	75.3	32.0	74.4
7	Machinery and equipment.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	72.9	57.8	58.9	84.5	93.4	91.8
9	Repairs, maintenance and alterations.....	27.1	42.2	41.1	15.5	6.6	8.2
10	Gross investment and maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	72.0	68.8	75.4	33.5	70.8	31.2
12	Repairs, maintenance and alterations.....	28.0	31.2	24.6	66.5	29.2	68.8

TABLE 24e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	13.8	31.4	29.7	7.7	21.0	12.6
2	All other government expenditures.....	86.2	68.6	70.3	92.3	79.0	87.4
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 24f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941
(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	1.90	6.39	6.53	1.12	4.15	1.77
2	New investment, replacements and major improvements.....	1.39	4.42	5.10	0.34	3.15	0.46
3	Repairs, maintenance and alterations.....	0.51	1.97	1.43	0.78	1.00	1.31
4	Natural resources.....	0.44	0.75	0.80	0.52	1.58	0.88
5	New investment, replacements and major improvements.....	0.39	0.69	0.49	0.13	1.07	0.23
6	Repairs, maintenance and alterations.....	0.05	0.06	0.31	0.39	0.51	0.65
7	Machinery and equipment.....	0.15	0.56	0.67	0.26	0.64	0.63
8	New investment, replacements and major improvements.....	0.11	0.32	0.39	0.22	0.60	0.58
9	Repairs, maintenance and alterations.....	0.04	0.24	0.28	0.04	0.04	0.05
10	Gross investment and maintenance.....	2.19	7.10	7.62	1.87	5.44	2.98
11	New investment, replacements and major improvements.....	1.58	4.88	5.75	0.63	3.85	0.93
12	Repairs, maintenance and alterations.....	0.61	2.22	1.87	1.24	1.59	2.05

SASKATCHEWAN

TABLE 25a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges.....	2,370	5,967	9,655	776	2,427	1,526
2	Buildings and grounds.....	422	2,276	1,368	143	455	440
3	Water mains, sewers, dams and reservoirs.....					99	
4	Docks, wharves, rivers, canals, dredging, etc.....						
5	Other.....	93	178	825	110	317	54
6	Public construction (Items 1 to 5).....	2,885	8,421	11,848	1,029	3,298	2,020
7	Planning and administrative expenses.....	231	674	948	82	264	162
8	Public works (Items 6 and 7).....	3,116	9,095	12,796	1,111	3,562	2,182
9	Natural resources.....	94	102	341	263	895	517
10	Machinery and equipment.....	86	320	338	70	321	213
11	Sub-Total (Items 8 to 10).....	3,296	9,517	13,475	1,444	4,778	2,912
12	Duplications.....	24	84	337	91	502	137
13	GROSS INVESTMENT AND MAINTENANCE (Item 11 less 12).....	3,272	9,433	13,138	1,353	4,276	2,775

TABLE 25b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	2,885	8,421	11,848	1,029	3,298	2,020
2	New investment, replacements and major improvements.....	1,717	6,082	9,704	281	1,938	974
3	Repairs, maintenance and alterations.....	1,168	2,339	2,144	748	1,360	1,046
4	Natural resources.....	94	102	341	263	895	517
5	New investment, replacements and major improvements.....	38	32	139	26	242	34
6	Repairs, maintenance and alterations.....	56	70	202	237	653	483
7	Machinery and equipment.....	86	320	338	70	321	213
8	New investment, replacements and major improvements.....	70	244	284	65	302	196
9	Repairs, maintenance and alterations.....	16	76	54	5	19	17
10	Gross investment and maintenance.....	3,272	9,433	13,138	1,353	4,276	2,775
11	New investment, replacements and major improvements.....	1,954	6,768	10,617	358	2,326	1,216
12	Repairs, maintenance and alterations.....	1,318	2,665	2,521	995	1,950	1,559

TABLE 25c—GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	3,272	9,433	13,138	1,353	4,276	2,775
2	All other government expenditures.....	9,683	13,516	15,984	22,426	42,841	20,434
3	Total Public Expenditure through Government, Capital and Current Accounts (Items 1 and 2).....	12,955	22,949	29,122	23,779	47,117	23,209
4	Adjustment for inter-governmental transfer payments..	52	521	1,239	1,419	1,865	2,237
5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4).....	12,903	22,428	27,883	(1)22,360	(1)45,252	(1)20,972

(1) As per Table 10 of Comparative Statistics of Public Finance.

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TABLE 25d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE
CLASSIFICATION, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	59.5	72.2	81.9	27.3	58.8	48.2
3	Repairs, maintenance and alterations.....	40.5	27.8	18.1	72.7	41.2	51.8
4	Natural resources.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	40.4	31.4	40.8	9.9	27.0	6.6
6	Repairs, maintenance and alterations.....	59.6	68.6	59.2	90.1	73.0	93.4
7	Machinery and equipment.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	81.4	76.3	84.0	92.9	94.1	92.0
9	Repairs, maintenance and alterations.....	18.6	23.7	16.0	7.1	5.9	8.0
10	Gross investment and maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	59.7	71.7	80.8	26.5	54.4	43.8
12	Repairs, maintenance and alterations.....	40.3	28.3	19.2	73.5	45.6	56.2

TABLE 25e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND
ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	25.3	41.1	45.1	5.7	9.1	12.0
2	All other government expenditures.....	74.7	58.9	54.9	94.3	90.9	88.0
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 25f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE
CLASSIFICATION, SELECTED YEARS, 1926-1941
(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	3.51	9.54	13.12	1.11	3.58	2.26
2	New investment, replacements and major improvements.....	2.09	6.89	10.75	0.30	2.10	1.09
3	Repairs, maintenance and alterations.....	1.42	2.65	2.37	0.81	1.48	1.17
4	Natural resources.....	0.11	0.12	0.38	0.28	0.97	0.58
5	New investment, replacements and major improvements.....	0.04	0.04	0.16	0.03	0.26	0.04
6	Repairs, maintenance and alterations.....	0.07	0.08	0.22	0.25	0.71	0.54
7	Machinery and equipment.....	0.10	0.36	0.38	0.07	0.35	0.24
8	New investment, replacements and major improvements.....	0.08	0.27	0.32	0.07	0.33	0.22
9	Repairs, maintenance and alterations.....	0.02	0.09	0.06	.....	0.02	0.02
10	Gross investment and maintenance.....	3.99	10.68	14.55	1.46	4.64	3.10
11	New investment, replacements and major improvements.....	2.38	7.66	11.76	0.39	2.52	1.36
12	Repairs, maintenance and alterations.....	1.61	3.02	2.79	1.07	2.12	1.74

ALBERTA

TABLE 26a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges.....	2,757	3,669	4,194	1,051	2,565	1,889
2	Buildings and grounds.....	438	2,153	2,355	441	621	681
3	Water mains, sewers, dams and reservoirs.....					152	
4	Docks, wharves, rivers, canals, dredging, etc.....		4	3	20		
5	Other.....	55	296	1,141	101	646	57
6	Public construction (Items 1 to 5).....	3,250	6,122	7,693	1,613	3,984	2,627
7	Planning and administrative expenses.....	260	490	615	129	319	210
8	Public works (Items 6 and 7).....	3,510	6,612	8,308	1,742	4,303	2,837
9	Natural resources.....	51	87	651	396	454	529
10	Machinery and equipment.....	163	432	526	282	187	275
11	Sub-total (Items 8 to 10).....	3,724	7,131	9,485	2,420	4,944	3,641
12	Duplications.....	42	161	334	78	105	73
13	GROSS INVESTMENT AND MAINTENANCE (Item 11 less 12).....	3,682	6,970	9,151	2,342	4,839	3,568

TABLE 26b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	3,250	6,122	7,693	1,613	3,984	2,627
2	New investment, replacements and major improvements.....	2,673	4,410	6,239	657	2,385	1,171
3	Repairs, maintenance and alterations.....	577	1,712	1,454	956	1,599	1,456
4	Natural resources.....	51	87	651	396	454	529
5	New investment, replacements and major improvements.....	20	53	518	119	160	495
6	Repairs, maintenance and alterations.....	31	34	133	277	294	34
7	Machinery and equipment.....	163	432	526	282	187	275
8	New investment, replacements and major improvements.....	135	362	405	190	159	223
9	Repairs, maintenance and alterations.....	28	70	121	92	28	52
10	Gross investment and maintenance.....	3,682	6,970	9,151	2,342	4,839	3,568
11	New investment, replacements and major improvements.....	3,005	5,034	7,362	966	2,863	1,939
12	Repairs, maintenance and alterations.....	677	1,936	1,789	1,376	1,976	1,629

TABLE 26c—GROSS INVESTMENT AND MAINTENANCE, ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	3,682	6,970	9,151	2,342	4,839	3,568
2	All other government expenditures.....	11,452	12,420	14,679	16,543	20,428	19,445
3	Total Public Expenditure through Government, Capital and Current Accounts (Items 1 and 2)	15,134	19,390	23,830	18,885	25,267	23,013
4	Adjustment for inter-governmental transfer payments..	115	171	541	1,402	4,584	2,898
5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4).....	15,019	19,219	23,289	(1)17,483	(1)20,683	(1)20,115

(1) As per Table 10 of Comparative Statistics of Public Finance.

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TABLE 26d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE
CLASSIFICATION, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	82.2	72.0	81.1	40.7	59.9	44.6
3	Repairs, maintenance and alterations.....	17.8	28.0	18.9	59.3	40.1	55.4
4	Natural resources.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	39.2	60.9	79.6	30.1	35.2	93.6
6	Repairs, maintenance and alterations.....	60.8	39.1	20.4	69.9	64.8	6.4
7	Machinery and equipment.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	82.8	83.8	77.0	67.4	85.0	81.1
9	Repairs, maintenance and alterations.....	17.2	16.2	23.0	32.6	15.0	18.9
10	Gross investment and maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	81.6	72.2	80.5	41.2	59.2	54.3
12	Repairs, maintenance and alterations.....	18.4	27.8	19.5	58.8	40.8	45.7

TABLE 26e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND
ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941
(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	24.3	35.9	38.4	12.4	19.2	15.5
2	All other government expenditures.....	75.7	64.1	61.6	87.6	80.8	84.5
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 26f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE
CLASSIFICATION, SELECTED YEARS, 1926-1941
(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	5.35	8.95	10.86	2.15	5.13	3.30
2	New investment, replacements and major improvements.....	4.40	6.45	8.81	0.88	3.07	1.47
3	Repairs, maintenance and alterations.....	0.95	2.50	2.05	1.27	2.06	1.83
4	Natural resources.....	0.08	0.13	0.92	0.53	0.59	0.66
5	New investment, replacements and major improvements.....	0.03	0.08	0.73	0.16	0.21	0.62
6	Repairs, maintenance and alterations.....	0.05	0.05	0.19	0.37	0.38	0.04
7	Machinery and equipment.....	0.27	0.63	0.74	0.37	0.24	0.35
8	New investment, replacements and major improvements.....	0.22	0.53	0.57	0.25	0.20	0.28
9	Repairs, maintenance and alterations.....	0.05	0.10	0.17	0.12	0.04	0.07
10	Gross investment and maintenance.....	6.05	10.19	12.93	3.12	6.24	4.48
11	New investment, replacements and major improvements.....	4.94	7.36	10.40	1.29	3.69	2.43
12	Repairs, maintenance and alterations.....	1.11	2.83	2.53	1.83	2.55	2.05

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TABLE 27a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS,
1926-1941
(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges.....	4,094	8,483	10,809	1,370	8,054	4,669
2	Buildings and grounds.....	717	2,050	1,868	264	800	757
3	Water mains, sewers, dams and reservoirs.....	44	.....	7	11	17	15
4	Docks, wharves, rivers, canals, dredging, etc.....	52	11	97	12	30	12
5	Other.....	393	799	1,331	611	1,557	425
6	Public construction (Items 1 to 5).....	5,300	11,343	14,112	2,268	10,458	5,878
7	Planning and administrative expenses.....	424	907	1,129	181	837	470
8	Public works (Items 6 and 7).....	5,724	12,250	15,241	2,449	11,295	6,348
9	Natural resources.....	1,517	2,235	2,854	964	3,350	2,275
10	Machinery and equipment.....	563	1,274	1,415	247	1,033	977
11	Sub-total (Items 8 to 10).....	7,804	15,759	19,510	3,660	15,678	9,600
12	Duplications.....	177	930	1,064	123	2,218	622
13	GROSS INVESTMENT AND MAINTENANCE (Item 11 less 12).....	7,627	14,829	18,446	3,537	13,460	8,978

TABLE 27b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION,
SELECTED YEARS, 1926-1941
(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	5,300	11,343	14,112	2,268	10,458	5,878
2	New investment, replacements and major improvements.....	2,669	8,384	9,882	685	7,400	2,190
3	Repairs, maintenance and alterations.....	2,631	2,959	4,230	1,583	3,058	3,688
4	Natural resources.....	1,517	2,235	2,854	964	3,350	2,275
5	New investment, replacements and major improvements.....	360	408	929	197	2,088	461
6	Repairs, maintenance and alterations.....	1,157	1,827	1,925	767	1,262	1,814
7	Machinery and equipment.....	563	1,274	1,415	247	1,033	977
8	New investment, replacements and major improvements.....	318	880	1,114	73	695	517
9	Repairs, maintenance and alterations.....	245	394	301	174	338	460
10	Gross investment and maintenance.....	7,627	14,829	18,446	3,537	13,460	8,978
11	New investment, replacements and major improvements.....	3,506	9,548	11,795	949	8,730	2,992
12	Repairs, maintenance and alterations.....	4,121	5,281	6,651	2,588	4,730	5,986

TABLE 27c—GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT
EXPENDITURES, SELECTED YEARS, 1926-1941
(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	7,627	14,829	18,446	3,537	13,460	8,978
2	All other government expenditures.....	15,160	17,886	17,649	20,362	22,433	26,131
3	Total Public Expenditure through Government, Capital and Current Accounts (Items 1 and 2).....	22,787	32,715	36,095	23,899	35,893	35,109
4	Adjustment for inter-governmental transfer payments..	86	589	895	1,591	2,363	2,859
5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4).....	22,701	32,126	35,200	(1)22,308	(1)33,530	(1)32,250

(1) As per Table 10 of Comparative Statistics of Public Finance.

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TABLE 27d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	50.4	73.9	70.0	30.2	70.8	37.3
3	Repairs, maintenance and alterations.....	49.6	26.1	30.0	69.8	29.2	62.7
4	Natural resources.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	23.7	18.3	32.6	20.4	62.3	20.3
6	Repairs, maintenance and alterations.....	76.3	81.7	67.4	79.6	37.7	79.7
7	Machinery and equipment.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	56.5	69.1	78.7	29.6	67.3	52.9
9	Repairs, maintenance and alterations.....	43.5	30.9	21.3	70.4	32.7	47.1
10	Gross investment and maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
11	New investment, replacements and major improvements.....	46.0	64.4	63.9	26.8	64.9	33.3
12	Repairs, maintenance and alterations.....	54.0	35.6	36.1	73.2	35.1	66.7

TABLE 27e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	33.5	45.3	51.1	14.8	37.5	25.6
2	All other government expenditures.....	66.5	54.7	48.9	85.2	62.5	74.4
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 27f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	8.75	17.21	20.88	3.16	13.78	7.19
2	New investment, replacements and major improvements.....	4.41	12.72	14.62	0.96	9.75	2.68
3	Repairs, maintenance and alterations.....	4.34	4.49	6.26	2.20	4.03	4.51
4	Natural resources.....	2.50	3.39	4.22	1.34	4.41	2.78
5	New investment, replacements and major improvements.....	0.59	0.62	1.37	0.27	2.75	0.56
6	Repairs, maintenance and alterations.....	1.91	2.77	2.85	1.07	1.66	2.22
7	Machinery and equipment.....	0.93	1.93	2.09	0.34	1.36	1.19
8	New investment, replacements and major improvements.....	0.52	1.34	1.65	0.10	0.92	0.63
9	Repairs, maintenance and alterations.....	0.41	0.59	0.44	0.24	0.44	0.56
10	Gross investment and maintenance.....	12.59	22.50	27.29	4.93	17.73	10.98
11	New investment, replacements and major improvements.....	5.79	14.49	17.45	1.32	11.50	3.66
12	Repairs, maintenance and alterations.....	6.80	8.01	9.84	3.61	6.23	7.32

MUNICIPAL GOVERNMENTS

TABLE 28a—GROSS INVESTMENT AND MAINTENANCE, BY TYPES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Streets, highways and bridges.....	28,684	40,227	41,393	27,863	29,922	32,166
2	Public buildings and other works.....	20,516	28,773	29,607	21,534	21,392	20,364
3	Public construction (Items 1 and 2).....	49,200	69,000	71,000	49,397	51,314	52,530
4	Planning and administrative expenses.....	3,936	5,520	5,680	3,952	4,105	4,202
5	Public works (Items 3 and 4).....	53,136	74,520	76,680	53,349	55,419	56,732
6	Machinery and equipment.....	13,629	19,113	19,667	13,683	14,214	14,551
7	Sub-total (Items 5 and 6).....	66,765	93,633	96,347	67,032	69,633	71,283
8	Duplications.....	5,117	7,176	7,384	5,137	5,337	5,463
9	GROSS INVESTMENT AND MAINTENANCE (Item 7 less 8).....	61,648	86,457	88,963	61,895	64,296	65,820

TABLE 28b—GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	49,200	69,000	71,000	49,397	51,314	52,530
2	New investment, replacements and major improvements.....	26,568	39,330	39,760	26,823	27,864	23,691
3	Repairs, maintenance and alterations.....	22,632	29,670	31,240	22,574	23,450	28,839
4	Machinery and equipment.....	13,629	19,113	19,667	13,683	14,214	14,551
5	New investment, replacements and major improvements.....	7,360	10,894	11,014	7,430	7,718	6,563
6	Repairs, maintenance and alterations.....	6,269	8,219	8,653	6,253	6,496	7,988
7	Gross investment and maintenance.....	61,648	86,457	88,963	61,895	64,296	65,820
8	New investment, replacements and major improvements.....	33,290	49,280	49,819	33,609	34,913	29,685
9	Repairs, maintenance and alterations.....	28,358	37,177	39,144	28,286	29,383	36,135

TABLE 28c—GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	61,648	86,457	88,963	61,895	64,296	65,820
2	All other government expenditures.....	210,038	228,439	242,117	296,575	312,143	264,976
3	Total Public Expenditure through Government, Capital and Current Accounts (Items 1 and 2).....	271,686	314,896	331,080	358,470	376,439	330,796
4	Adjustment for inter-governmental transfer payments..	14,357	17,749	17,748	56,700	80,151	38,279
5	TOTAL PUBLIC EXPENDITURE BY GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Item 3 less 4).....	257,329	297,147	313,332	(1)301,770	(1)296,288	(1)292,517

(1) As per Table 10 of Comparative Statistics of Public Finance.

MUNICIPAL GOVERNMENTS

TABLE 28d—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	100.0	100.0	100.0	100.0	100.0	100.0
2	New investment, replacements and major improvements.....	54.0	57.0	56.0	54.3	54.3	45.1
3	Repairs, maintenance and alterations.....	46.0	43.0	44.0	45.7	45.7	54.9
4	Machinery and equipment.....	100.0	100.0	100.0	100.0	100.0	100.0
5	New investment, replacements and major improvements.....	54.0	57.0	56.0	54.3	54.3	45.1
6	Repairs, maintenance and alterations.....	46.0	43.0	44.0	45.7	45.7	54.9
7	Gross investment and maintenance.....	100.0	100.0	100.0	100.0	100.0	100.0
8	New investment, replacements and major improvements.....	54.0	57.0	56.0	54.3	54.3	45.1
9	Repairs, maintenance and alterations.....	46.0	43.0	44.0	45.7	45.7	54.9

TABLE 28e—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, AND ALL OTHER GOVERNMENT EXPENDITURES, SELECTED YEARS, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Gross investment and maintenance.....	22.7	27.5	26.9	17.3	17.1	19.9
2	All other government expenditures.....	77.3	72.5	73.1	82.7	82.9	80.1
3	TOTAL PUBLIC EXPENDITURE THROUGH GOVERNMENT, CAPITAL AND CURRENT ACCOUNTS (Items 1 and 2).....	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 28f—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, PURPOSE CLASSIFICATION, SELECTED YEARS, 1926-1941

(Dollars)

Item No.	Type of expenditure	1926	1929	1930	1933	1937	1941
1	Public construction.....	5.21	6.89	6.96	4.65	4.65	4.57
2	New investment, replacements and major improvements.....	2.81	3.93	3.90	2.53	2.53	2.06
3	Repairs, maintenance and alterations.....	2.40	2.96	3.06	2.12	2.12	2.51
4	Machinery and equipment.....	1.44	1.91	1.93	1.29	1.29	1.27
5	New investment, replacements and major improvements.....	0.78	1.09	1.08	0.70	0.70	0.57
6	Repairs, maintenance and alterations.....	0.66	0.82	0.85	0.59	0.59	0.70
7	Gross investment and maintenance.....	6.53	8.63	8.73	5.83	5.83	5.73
8	New investment, replacements and major improvements.....	3.53	4.92	4.89	3.17	3.17	2.58
9	Repairs, maintenance and alterations.....	3.00	3.71	3.84	2.66	2.66	3.15

MUNICIPAL GOVERNMENTS

TABLE 29a—GROSS INVESTMENT AND MAINTENANCE, BY PROVINCES, SELECTED YEARS, 1926-1941

(Thousands of Dollars)

Item No.	Province	1926	1929	1930	1933	1937	1941
1	Prince Edward Island.....	163	229	235	165	294	116
2	Nova Scotia.....	2,513	1,456	3,096	1,328	1,870	1,528
3	New Brunswick.....	1,406	1,861	2,740	1,131	1,340	1,038
4	Quebec.....	7,883	18,947	11,663	13,711	14,127	15,571
5	Ontario.....	41,829	45,826	55,677	32,518	29,701	29,052
6	Manitoba.....	2,097	4,844	4,153	2,309	4,550	3,635
7	Saskatchewan.....	1,451	3,355	2,877	2,907	3,115	4,372
8	Alberta.....	2,097	4,843	4,153	5,695	4,560	5,874
9	British Columbia.....	2,209	5,096	4,369	2,131	4,739	4,634
10	CANADA.....	61,648	86,457	88,963	61,895	64,296	65,820

TABLE 29b—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, BY PROVINCES, SELECTED YEARS, 1926-1941

(Dollars)

Item No.	Province	1926	1929	1930	1933	1937	1941
1	Prince Edward Island.....	1.87	2.60	2.67	1.83	3.16	1.22
2	Nova Scotia.....	4.88	2.83	6.02	2.53	3.41	2.64
3	New Brunswick.....	3.55	4.61	6.75	2.70	3.07	2.27
4	Quebec.....	3.03	6.84	4.13	4.61	4.50	4.67
5	Ontario.....	13.22	13.75	16.44	9.26	8.17	7.67
6	Manitoba.....	3.28	7.16	6.03	3.26	6.37	4.98
7	Saskatchewan.....	1.77	3.80	3.19	3.14	3.38	4.88
8	Alberta.....	3.45	7.08	5.87	7.59	5.88	7.38
9	British Columbia.....	3.65	7.73	6.46	2.97	6.24	5.67
10	CANADA.....	6.53	8.63	8.73	5.83	5.83	5.73

ALL GOVERNMENTS

TABLE 30a—GROSS INVESTMENT AND MAINTENANCE, BY PROVINCES, 1937

(Thousands of Dollars)

Item No.	Province	Dominion Government	Provincial governments	Municipal governments	All governments
1	Prince Edward Island.....	604	1,022	294	1,920
2	Nova Scotia.....	4,508	12,746	1,870	19,124
3	New Brunswick.....	2,742	12,623	1,340	16,705
4	Quebec.....	15,395	46,642	14,127	76,164
5	Ontario.....	12,454	48,840	29,701	90,995
6	Manitoba.....	978	3,889	4,550	9,417
7	Saskatchewan.....	2,771	4,276	3,115	10,162
8	Alberta.....	2,592	4,839	4,560	11,991
9	British Columbia.....	6,200	13,460	4,739	24,399
10	Yukon and Northwest Territories.....	574	.....	.....	574
11	CANADA.....	48,818	148,337	64,296	261,451

TABLE 30b—DISTRIBUTION OF GROSS INVESTMENT AND MAINTENANCE, BY PROVINCES, 1937

(Percentages)

Item No.	Province	Dominion Government	Provincial governments	Municipal governments	All governments
1	Prince Edward Island.....	1.3	0.7	0.4	0.7
2	Nova Scotia.....	9.2	8.6	2.9	7.3
3	New Brunswick.....	5.6	8.5	2.1	6.4
4	Quebec.....	31.5	31.4	22.0	29.2
5	Ontario.....	25.5	32.9	46.2	34.8
6	Manitoba.....	2.0	2.6	7.1	3.6
7	Saskatchewan.....	5.7	2.9	4.8	3.9
8	Alberta.....	5.3	3.3	7.1	4.6
9	British Columbia.....	12.7	9.1	7.4	9.3
10	Yukon and Northwest Territories.....	1.2	.....	.....	0.2
11	CANADA.....	100.0	100.0	100.0	100.0

TABLE 30c—PER CAPITA GROSS INVESTMENT AND MAINTENANCE, BY PROVINCES, 1937

(Dollars)

Item No.	Province	Dominion Government	Provincial governments	Municipal governments	All governments
1	Prince Edward Island.....	6.49	11.00	3.16	20.65
2	Nova Scotia.....	8.21	23.21	3.41	34.83
3	New Brunswick.....	6.27	28.89	3.07	38.23
4	Quebec.....	4.90	14.85	4.50	24.25
5	Ontario.....	3.42	13.43	8.17	25.02
6	Manitoba.....	1.37	5.44	6.36	13.17
7	Saskatchewan.....	3.01	4.64	3.38	11.03
8	Alberta.....	3.34	6.23	5.88	15.45
9	British Columbia.....	8.17	17.73	6.24	32.14
10	Yukon and Northwest Territories.....	35.88	.....	.....	35.88
11	CANADA.....	4.42	13.45	5.83	23.70

CANADA

TABLE 31—GROSS INVESTMENT AND REPAIRS AND MAINTENANCE, BY COMPONENTS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1927	1928	1929
	Gross investment				
1	Total new construction and resource development (excluding durable equipment and duplications).....	483	529	649	761
2	Flow of producers' durable goods.....	293	360	423	503
3	Change in business inventories (including grain in commercial channels).....	116	154	235	104
4	Change in farm inventories.....	66	51	5	-144
5	Net balance of international payments, current transactions.....	127	-10	-32	-311
6	Total Gross Investment (Items 1 to 5).....	1,085	1,084	1,280	913
	Repairs and maintenance				
7	Repairs and maintenance, private building construction and all direct government.....	146	156	181	195
8	Producers' durable goods—repairs and servicing.....	34	37	36	46
9	Repairs and maintenance, farms, woods operations, mining.....	39	40	43	42
10	Repairs and maintenance, public utilities.....	164	174	187	187
11	Total Repairs and Maintenance (Items 7 to 10).....	383	407	447	470
12	TOTAL GROSS INVESTMENT AND REPAIRS AND MAINTENANCE (Items 6 and 11).....	1,468	1,491	1,727	1,383

TABLE 32—COMPARISON OF PRIVATE AND PUBLIC GROSS INVESTMENT, BY COMPONENTS, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1927	1928	1929
	Private gross investment				
1	Public utility construction.....	79	86	110	131
2	All other construction.....	274	283	342	379
3	Flow of producers' durable goods.....	270	316	385	442
4	Change in (business and farm) inventories.....	182	205	240	-40
5	Net balance of international payments, current transactions.....	*	98	19	-208
6	Total Private Gross Investment (Items 1 to 5).....		988	1,096	704
	Public gross investment				
7	Public utility construction.....	46	55	75	105
8	All other construction and resources development (excluding durable equipment and duplications).....	84	105	122	146
9	Flow of producers' durable goods.....	23	44	38	61
10	Change in inventories.....				
11	Net balance of international payments, current transactions.....	*	-108	-51	-103
12	Total Public Gross Investment (Items 7 to 11).....		96	184	209
13	TOTAL GROSS INVESTMENT (Items 6 and 12).....	1,085	1,084	1,280	913

* Not available.

CANADA

TABLE 31—GROSS INVESTMENT AND REPAIRS AND MAINTENANCE, BY COMPONENTS, 1926-1941

(Millions of Dollars)

1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Item No.
707	549	305	206	256	304	335	450	406	414	535	723	1
401	220	131	100	149	177	236	366	327	305	495	696	2
82	-27	-60	-132	28	14	-106	24	121	166	247	258	3
66	-1	20	-29	-12	13	-45	-22	32	50	77	-39	4
-337	-174	-96	-2	68	125	244	180	100	126	149	491	5
919	567	300	143	489	633	664	998	986	1,061	1,503	2,129	6
187	181	127	103	123	131	142	173	172	160	148	155	7
42	27	18	19	20	25	27	30	28	28	37	70	8
39	28	24	25	30	33	36	42	42	45	50	52	9
155	135	114	109	115	119	128	135	130	128	133	160	10
423	371	283	256	288	308	333	380	372	361	368	437	11
1,342	938	583	399	777	941	997	1,378	1,358	1,422	1,871	2,566	12

TABLE 32—COMPARISON OF PRIVATE AND PUBLIC GROSS INVESTMENT, BY COMPONENTS, 1926-1941

(Millions of Dollars)

1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Item No.
123	102	49	27	31	30	30	38	36	39	34	40	1
309	226	123	87	113	140	172	222	191	200	218	325	2
338	173	111	83	132	154	204	311	275	259	388	491	3
148	-28	-40	-161	16	-14	-103	2	136	194	212	38	4
-157	-112	-72	2	42	43	157	157	-5	28	*	*	5
761	361	171	38	334	353	460	730	633	720	.....	.....	6
93	73	29	15	16	25	24	29	33	32	29	36	7
182	148	104	77	96	109	109	161	146	143	254	322	8
63	47	20	17	17	23	32	55	52	46	107	205	9
.....	.....	.....	.....	.....	41	-48	.....	17	22	112	181	10
-180	-62	-24	-4	26	82	87	23	105	98	*	*	11
158	206	129	105	155	280	204	268	353	341	.....	.....	12
919	567	300	143	489	633	664	998	986	1,061	1,503	2,129	13

CANADA

TABLE 33a—COMPARISON OF PRIVATE AND PUBLIC CONSTRUCTION AND REPAIRS AND MAINTENANCE, PURPOSE CLASSIFICATION, 1926-1941

(Millions of Dollars)

Item No.	Type of expenditure	1926	1927	1928	1929
	New construction				
1	Privately-owned utility construction.....	79	86	110	131
2	All other private construction.....	274	283	342	379
3	Total Private Construction (Items 1 and 2).....	353	369	452	510
4	Publicly-owned utility construction.....	46	55	75	105
5	Construction by government.....	79	100	116	137
6	Total Public Construction (Items 4 and 5).....	125	155	191	242
7	Total Construction (Items 3 and 6).....	478	524	643	752
	Repair and maintenance construction				
8	Repairs and maintenance, privately-owned public utilities.....	37	40	42	42
9	All other private repair and maintenance construction.....	104	103	122	127
10	Total private repairs and maintenance (Items 8 and 9).....	141	143	164	169
11	Repairs and maintenance publicly-owned public utilities.....	39	45	48	50
12	Direct government repair and maintenance construction.....	43	52	59	65
13	Total public repairs and maintenance (Items 11 and 12).....	82	97	107	115
14	Total Repairs and Maintenance (Items 10 and 13).....	223	240	271	284
	New and repair and maintenance construction				
15	New and repair and maintenance construction privately-owned public utilities....	116	126	152	173
16	All other private new and repair and maintenance construction.....	378	386	464	506
17	Total private new and repair and maintenance construction (Items 15 and 16)..	494	512	616	679
18	New and repair and maintenance construction publicly-owned utilities.....	85	100	123	155
19	Direct government new and repair and maintenance construction.....	122	152	175	202
20	Total public new and repair and maintenance construction (Items 18 and 19)..	207	252	298	357
21	TOTAL NEW AND REPAIR AND MAINTENANCE CONSTRUCTION (Items 17 and 20).....	701	764	914	1,036

CANADA

TABLE 33a—COMPARISON OF PRIVATE AND PUBLIC CONSTRUCTION AND REPAIRS
AND MAINTENANCE, PURPOSE CLASSIFICATION, 1926-1941

(Millions of Dollars)

1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Item No.
123	102	49	27	31	30	30	38	36	39	34	40	1
309	226	123	87	113	140	172	222	191	200	218	325	2
432	328	172	114	144	170	202	260	227	239	252	365	3
93	73	29	15	16	25	24	29	33	32	29	36	4
171	144	100	71	93	106	104	150	138	136	244	297	5
264	217	129	86	109	131	128	179	171	168	273	333	6
696	545	301	200	253	301	330	439	398	407	525	698	7
39	33	32	30	31	32	33	34	34	34	38	44	8
113	93	60	59	69	77	93	115	99	92	95	100	9
152	126	92	89	100	109	126	149	133	126	133	144	10
44	42	35	34	34	35	37	38	38	41	44	51	11
68	71	57	41	47	49	47	58	64	66	54	58	12
112	113	92	75	81	84	84	96	102	107	98	109	13
264	239	184	164	181	193	210	245	235	233	231	253	14
162	135	81	57	62	62	63	72	70	73	72	84	15
422	319	183	146	182	217	265	337	290	292	313	425	16
584	454	264	203	244	279	328	409	360	365	385	509	17
137	115	64	49	50	60	61	67	71	73	73	87	18
239	215	157	112	140	155	151	208	202	202	298	355	19
376	330	221	161	190	215	212	275	273	275	371	442	20
960	784	485	364	434	494	540	684	633	640	756	951	21

CANADA

TABLE 33b— DISTRIBUTION OF COMPARISON OF PRIVATE AND PUBLIC CONSTRUCTION AND REPAIRS AND MAINTENANCE, PURPOSE CLASSIFICATION, 1926-1941

(Percentages)

Item No.	Type of expenditure	1926	1927	1928	1929
	New construction				
1	Privately-owned utility construction.....	16.6	16.4	17.1	17.4
2	All other private construction.....	57.3	54.0	53.2	50.4
3	Total private construction (Items 1 and 2).....	73.9	70.4	70.3	67.8
4	Publicly-owned utility construction.....	9.6	10.5	11.7	14.0
5	Construction by government.....	16.5	19.1	18.0	18.2
6	Total public construction (Items 4 and 5).....	26.1	29.6	29.7	32.2
7	Total Construction (Items 3 and 6).....	100.0	100.0	100.0	100.0
	Repair and maintenance construction				
8	Repairs and maintenance, privately-owned public utilities.....	16.6	16.7	15.5	14.8
9	All other private repair and maintenance construction.....	46.6	42.9	45.0	44.7
10	Total private repairs and maintenance (Items 8 and 9).....	63.2	59.6	60.5	59.5
11	Repairs and maintenance publicly-owned public utilities.....	17.5	18.7	17.7	17.6
12	Direct government repair and maintenance construction.....	19.3	21.7	21.8	22.9
13	Total public repairs and maintenance (Items 11 and 12).....	36.8	40.4	39.5	40.5
14	Total Repairs and Maintenance (Items 10 and 13).....	100.0	100.0	100.0	100.0
	New and repair and maintenance construction				
15	New and repair and maintenance construction privately-owned public utilities....	16.6	16.5	16.6	16.7
16	All other private new and repair and maintenance construction.....	53.9	50.5	50.8	48.8
17	Total private new and repair and maintenance construction (Items 15 and 16)...	70.5	67.0	67.4	65.5
18	New and repair and maintenance construction publicly-owned utilities.....	12.1	13.1	13.5	15.0
19	Direct government new and repair and maintenance construction.....	17.4	19.9	19.1	19.5
20	Total Public New and Repair and Maintenance Construction (Items 18 and 19)	29.5	33.0	32.6	34.5
21	Total New and Repair and Maintenance Construction (Items 17 and 20).....	100.0	100.0	100.0	100.0

TABLE 33b—DISTRIBUTION OF COMPARISON OF PRIVATE AND PUBLIC CONSTRUCTION
AND REPAIRS AND MAINTENANCE, PURPOSE CLASSIFICATION, 1926-1941

[illegible]

CANADA

TABLE 34—POPULATION, BY PROVINCES, 1926-1941

(In Thousands)

Item No.	Province	1926	1927	1928	1929
1	Prince Edward Island	87	87	88	88
2	Nova Scotia	515	515	515	515
3	New Brunswick	396	398	401	404
4	Quebec	2,603	2,657	2,715	2,772
5	Ontario	3,164	3,219	3,278	3,334
6	Manitoba	639	651	664	677
7	Saskatchewan	821	841	862	883
8	Alberta	608	633	658	684
9	British Columbia	605	623	641	659
10	Combined nine provinces (Items 1 to 9)	9,439	9,624	9,822	10,016
11	Yukon and Northwest Territories	12	13	13	13
12	CANADA (Items 10 and 11)	9,451	9,637	9,835	10,029

Source: Special estimate by courtesy of Dominion Bureau of Statistics.

CANADA

TABLE 34—POPULATION, BY PROVINCES, 1926-1941

(In Thousands)

1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	Item No.
88	88	89	90	91	92	93	93	94	94	95	95	1
514	513	519	525	531	536	543	549	555	561	569	578	2
406	408	414	419	423	428	433	437	442	447	452	457	3
2,825	2,874	2,925	2,972	3,016	3,057	3,099	3,141	3,183	3,230	3,278	3,332	4
3,386	3,432	3,473	3,512	3,544	3,575	3,606	3,637	3,672	3,708	3,747	3,788	5
689	700	705	708	709	710	711	715	720	726	728	730	6
903	922	924	926	928	930	931	922	914	906	900	896	7
708	732	740	750	758	765	773	776	781	786	790	796	8
676	694	707	717	727	736	745	759	775	792	805	818	9
10,195	10,363	10,496	10,619	10,727	10,829	10,934	11,029	11,136	11,250	11,364	11,490	10
13	13	14	14	14	16	16	16	16	17	17	17	11
10,208	10,376	10,510	10,633	10,741	10,845	10,950	11,045	11,152	11,267	11,381	11,507	12

PART IV

EXPLANATORY NOTES TO TABLES IN PART III

SECTION 1. Capital Formation and Savings Offsets

SECTION 2. Component Tables of Capital Formation

SECTION 3. Public Utilities

SECTION 4. Public Investment by Governments

SECTION 5. Supplementary Tables

SECTION 6. Appraisal of the Meaning and Accuracy of the Estimates

PART IV

EXPLANATORY NOTES TO TABLES IN PART III.

These notes are intended to give a general description of the methods used in the preparation of the material in the statistical tables. They give sufficient detail only to enable the reader to make a broad appraisal of the accuracy of the various estimated quantities; a complete detailed explanation could only have been made at much greater length than was felt desirable for this study. Reference to all the sources used is given and where basic data is published the accuracy of this basic information may be checked by the reader for himself. Methods of utilizing the data are described in all cases. For the more deeply interested, access may be had to the worksheets, except in cases where confidential information is involved, by enquiry of the Dominion-Provincial Conference Secretariat.

Frequent references are made to the Dominion Bureau of Statistics and its publications. For the sake of brevity the Dominion Bureau of Statistics is referred to as "D.B.S." References to Simon Kuznets: *Commodity Flow and Capital Formation*, National Bureau of Economic Research, New York, 1939, are given as "Kuznets".

Since 1941 the Dominion Bureau of Statistics has sent questionnaires to manufacturing, mining, electric light and power, and telephone companies asking for capital expenditure during the calendar year. The information obtained includes among other things expenditure on plant, on equipment and on repair and maintenance work. Reference to this material which was made available in summary form by the Dominion Bureau of Statistics is given as the "Capital Expenditure Survey".

These explanatory notes are organized in the order of the tables in Part III.

SECTION 1

GROSS INVESTMENT, CAPITAL FORMATION AND SAVINGS OFFSETS

GROSS DOMESTIC CAPITAL FORMATION AND GROSS INVESTMENT, TABLE 1a

This table includes all the items which enter into a comprehensive figure of gross domestic capital formation and gross investment. The material entering into these items is given in greater detail and by other classifications in Sections 2 to 5 of the tables in Part III.

Since an elaborated description of method has been given for Sections 2 to 5, the notes on the tables in Section 1 are brief.

Public Investment

Item 1—Direct Government.—Direct government investment includes expenditure by governments, excluding public utility corporations and other separate bodies, in new public works, new resources development and in new machinery and equipment. The content and method of calculation is described in Section 4 of this Part. The entry is from Table 15(a), Item 4.

Item 2—Utilities (Publicly-owned).—This group includes electric and power companies, telephone companies, steam railways, electric railways, municipal waterworks and a small group of miscellaneous bodies. Expenditure on the Hudson Bay Railway, included with the public utilities in Tables 9, 12 and 14, has been removed from this item in this table for the years 1926 to 1930 as it is included in direct government investment, Item 1, this table. The Hudson Bay Railway is not included in direct government investment and remains with the public utilities in this table following 1930.

For a description of method of calculation, see Section 3 of this Part.

Private Investment

Item 4—Residential, Commercial, Industrial, Institutional.—Included are all private expenditures for this group on both construction and machinery and equipment. This item has been obtained by subtracting from the totals of new construction and new machinery and equipment (Tables 5 and 6), the quantities contained in other items in this table.

Item 5—Agriculture, Mines, Woods Operations.—This item includes capital outlay by mines on new construction and machinery and equipment, by agriculture on farm construction materials and agricultural machinery, and by woods operators on construction and machinery and equipment. Woods operations cover only logging activities but do not include sawmills or pulp and paper operations. The details are given in the notes on Tables 5 and 6.

Item 6—Utilities.—Included are telephone companies, electrical and steam railway companies, electric light and power companies and their subsidiaries. Ocean steamship lines are not covered. For details see the notes in Section 2.

Item 9—Change in Business Inventories.—The values given here are the current values of the physical change in inventories. Both public and private are included. For details see notes on Table 7.

Item 11—Change in Grain in Commercial Channels and Farm Inventories.—This group is the physical value of the change in both commercial grain and grain and livestock held on farms. See notes on Table 7.

Item 13—Net Balance of International Payments, Current Transactions.—The net balance on international account current transactions is the difference between total current credits and total current debits. A description of the contents and reference to sources is given in the notes on Table 8.

REPAIR AND MAINTENANCE OF DURABLE PHYSICAL ASSETS, TABLE 2a

Repair and maintenance expenditures include expenditure on those items designed to keep capital in working order. It is frequently very difficult to decide whether an item of expenditure should be put in as a capital item or as a repair and maintenance item. A repair part may be essential to the working of a machine and once installed may have a life equal to that of the machine. Other repair parts might help current operations but it might not be essential that they be installed. In general, repair and maintenance expenditure is that part of outlay designed to keep a piece of capital equipment in working order or to keep a structure from deteriorating much more rapidly than it otherwise would.

In most cases where capital expenditure and repair and maintenance costs were obtained from direct correspondence or from company accounts it has been necessary to accept company accounting practice. For those items, notably machinery and equipment which were obtained by using production, export and import figures, it was attempted to make the division on the basis of whether an article was a major item or a repair part. The division is explained in the notes on Tables 5 and 6 and in Section 2. The repair and maintenance outlay in this table corresponds to investment expenditure in the same items in Table 1.

Item 1—Direct Government.—See Table 15 (a), Item 8. This includes repair and maintenance work, materials and labour, on buildings and engineering structures, on conservation of resources and on machinery. For further details see notes on Section 4.

Item 2—Utilities, Publicly-owned.—See Table 12 (a), Item 18. Both materials and labour used in repairing or maintaining structures or equipment are included. For further details see notes on Section 2.

Item 4—Residential, Industrial and Institutional.—This includes both materials and labour for building repair and maintenance. Repairs to machinery and equipment include only the repair parts themselves. The quantities entered in this item for both construction repairs, and parts for machinery and equipment were obtained by subtracting from the repair and maintenance totals Items 12 and 22 in Tables 5a and 6a respectively the amounts covered in other items in this table. It was felt that there was not sufficient information to make an estimate which would include labour for repair work on machinery and equipment. For details of computation see notes on Table 5, and Table 6.

Item 5—Agriculture, Mines, Woods Operations.—Building repair work done in agriculture includes only materials which were used for repair work. For agricultural machinery and equipment only repair parts are included. For mining and woods operations both materials and labour for construction and repairs to machinery and equipment were included. For details of method see the notes on Tables 5 and 6.

Item 6—Utilities.—Repair and maintenance work on private utilities includes the same items as for publicly-owned utilities, Item 2 of this table. For details of method, see the notes on Section 4.

GROSS DOMESTIC CAPITAL FORMATION, GROSS INVESTMENT AND REPAIRS AND MAINTENANCE, TABLE 3a

Table 3 is merely the sum of the corresponding items in Tables 1 and 2. Note that there is no repair and maintenance items to correspond to Items 9, 11 and 13 of Table 1. These are included as given in Table 1a.

GROSS SAVINGS OFFSETS, SELECTED YEARS, 1926-1941, TABLE 4a

In the computation of national income and gross national product, private savings are computed by subtracting from the total income of individuals and of business the amount of taxes paid or accrued and expenditure on consumer goods. (Some of the business incomes may be negative if losses have been incurred during the year.) As an offset to these savings, private individuals and business make expenditures for capital goods. Investment expenditures of private individuals and business are therefore a direct offset to savings. Publicly-owned utilities, for this purpose, are treated as private business and their capital expenditure may also be regarded as a savings offset.

Savings offsets provided by governments are the excess of government expenditures over government revenues. As this excess may be either larger or smaller than government investment, the latter does not provide a measure of the offset to savings provided by the government.

Item 1—Direct Government Deficits.—This includes the sum of the excess of expenditure over revenue of all Dominion, provincial and municipal governments. Revenue includes only those items which may be regarded as a charge on current private income. Expenditure includes only those items for which payments are made for service rendered or for transfer payments which do not involve acquisition of an asset or liquidation of a liability or for write-offs; both capital and current expenditure as the terms are used in the Public Accounts are included. Working capital advances and loans to private business or individuals are not included in expenditures.

Other Items.—The remainder of the items are obtained directly from comparable entries in Table 1.

SECTION 2.

COMPONENT TABLES OF GROSS INVESTMENT AND CAPITAL FORMATION

GROSS INVESTMENT AND MAINTENANCE, CONSTRUCTION, BY TYPES, TABLE 5a

Construction includes building construction, engineering construction and harbour and river work. Building construction covers office buildings, factories, warehouses, schools, theatres, hotels and all other structures of similar kind. A substantial amount of trade work, largely on repairs, is also done on buildings. Engineering construction includes roads, railway tracks, dams, transmission lines, watermains, sewers and other such works. Harbour and river work covers construction of docks and wharves, river dredging, and the installation of navigation guides.

Since 1934 the Construction Branch of the Dominion Bureau of Statistics has been taking an annual census from government bodies, contractors and sub-contractors, tradesmen and owner-builders on the amount of building and other construction done by them. This material is published annually in D.B.S.: *Report on the Construction Industry in Canada*.

In these reports construction is divided among building, engineering, harbour and river work and trade construction. The amounts reported cannot be taken as construction in Canada because:—

- (a) the coverage increased almost continuously from the time of inception in 1934 until 1941, so that it does not give a proper series;
- (b) even in 1941 a large number of small tradesmen were not included;
- (c) an amount of force account work done by homeowners, farmers, woods operators, railways, and part of that done by others is not included.

Estimates of the amount of engineering and river and harbour construction have been made directly for those bodies which do such work, namely governments, public utilities, mines and woods operators and small amounts for others. The method of obtaining outlay for these various groups is found in other parts of the explanatory notes.

No figures covering the entire period were available for manufacturing, commercial, residential, and institutional building construction. Figures for most building construction were available in the Construction Census for 1941, and this was supplemented by information obtained in the decennial census and by estimates of uncovered work. To make estimates for other years it was decided to obtain a consistent series for the entire period using the estimate for 1941 as a benchmark.

The Census of Construction gives total value of work performed by the reporting contractors, tradesmen and government bodies on all types of construction. It also gives separately the amounts of materials used by contractors and tradesmen on work done by them and by government bodies on their own force account work. To measure building construction the plan adopted was to obtain a series of building materials used and on the basis of the ratio of materials-used to value of work performed to obtain an estimate of building construction.

The steps taken are as follows:

(1) From the total value of all work performed, as reported in the Census of Construction for each year from 1934 to 1941, the amount of work done by governments for themselves and the amount of engineering and river work done by contractors was subtracted.

(2) For engineering and harbour and river work done by contractors, the ratio of materials-used to value of work performed was obtained for each year by compilation of data in the reports obtained in the Census of Construction, of a large number of contractors who do work of this nature. The ratio for each year was then applied to total engineering and harbour and river work done by contractors to get total materials used by contractors on engineering and harbour and river construction.

(3) From the total of all materials used as reported in the Census of Construction was subtracted the amount of materials used by contractors on engineering work and the amount of materials used by governments on their own force account work, the latter being given separately. The remainder is materials used in building done by contractors.

(4) The ratios of materials used in building construction to value of work performed was then computed for all years from 1935 to 1941. This ratio was quite constant, showing a slight tendency to rise in years of low activity and to decline in years of high activity. This slight variation is caused by a larger relative amount of repair and maintenance work in the years of low activity as this type of work ordinarily uses somewhat smaller amounts of materials. Ratios were then projected for the years prior to 1934 on the basis of the assumption that the ratio was rather constant with a slight decline in depression years as compared with prosperous years. (Kuznets shows a slight decline in ratio from 1929 and 1930 to 1933.)

(5) A series of building materials-used was compiled by adding imports plus duty to production figures, subtracting exports and making adjustments for taxes. Production figures were available annually in the Alphabetical Product List of D.B.S.: *Manufacturing Industries of Canada*, an annual statement, back to 1928. Prior to that year they were obtained directly from the records of D.B.S. As there had been some shifting in classification, a detailed examination of cards maintained in D.B.S. was made to get comparable figures for the whole period. Export and import figures come from D.B.S.: *Trade of Canada*. Prior to 1939 duty was given for fiscal years and was adjusted to the calendar year on the basis of the ratio of imports for the fiscal year to imports for the calendar year.

Rather large amounts of wood products are used in the wood-using industries. The value of materials used in the wood-using industries (furniture, cooperage, etc.) is given in D.B.S. *Annual Report of the Wood-using Industries*. These values are reduced by the amount of margins as obtained in the surveys undertaken by the Merchandising and Services Branch, D.B.S., 1934 to 1937, in order to give them at manufacturers' prices. The channels of distribution were obtained from Volume XI of Decennial Census 1931. Allowance was also made for freight which was taken arbitrarily at 9 per cent after examination of Kuznets' material, and adjustment for Canadian conditions.

In addition rather large amounts of materials are used on farms. These were estimated separately as described in the notes for Item 3 of this table. As they were valued at cost to the farmer, margins and freight were subtracted. Both the materials used by farmers and materials used in the wood-using industries were subtracted from the supply series obtained by the production-export-import method and correction was made for changes in inventories held by manufacturers. (Inventories of distributors were not available for all years and hence no correction could be made for them, but they are relatively small.) To the resulting series were added amounts for taxes.

It was not possible from the information available to separate all unfinished from finished commodities in the above procedure but it was believed the ratio of finished to unfinished would not change greatly. For this reason and because the series was to be used only to provide an index, no margins were added for distribution or for freight, it being assumed that the proportion of margins and freight to cost to the user would be fairly constant. The materials used at manufacturers prices plus tax were therefore used to obtain an index regarded as an index of construction materials used.

(6) To the amount of building construction reported in the Census of Construction in 1941 was added some unreported work done for the Dominion Government on aerodromes, and barracks, an amount done by independent tradesmen, and some building done by owner-builders. The amount of government work not covered by the Census of Construction was obtained by comparing information on government work with similar items reported in the Census of Construction.

To estimate the amount of work done by the tradesmen not covered, a comparison was made of the numbers reporting to the Census of Construction in 1941 with the numbers reporting in the Decennial Census. The total number of non-government reports is given in the Census of Construction. The number of owner-builders reporting was obtained from the Construction Branch of D.B.S. For 1941 the Decennial Census *Bulletin O-3j* gave the number of employers of which it was assumed that 25 per cent were partners. Elimination of the employers and the owner-builders left a figure for the number of own-account workers employed.

Bulletin O-3j of the Decennial Census also gave the number of own-account workers at June 2, 1941. The number of those reported in the Census of Construction as computed above was subtracted from the Decennial Census figure to give the number of own-account workers not covered in the Construction Census.

Wages for these own-account workers were computed on the basis of the number of weeks worked, reported in *Bulletin No. E-2* of the Decennial Census 1941 and the average weekly earnings as computed from data in the same bulletin. A slight adjustment upward for weekly earnings was made from the year covered by the Decennial Census, June 1940 to May 1941, to obtain wages for the calendar year 1941. This was done on the basis of an index of wages in the building trades (see Canada Year Book 1944, page 731). Annual earnings of tradesmen for 1941 were thus obtained and 10 per cent was added for the reason that these were own-account workers and would probably be obtaining larger incomes than wage earners.

Information in both the annual Census of Construction and as computed for N.H.A. building shows a ratio of materials to labour of approximately 1.55 to 1. (see O. J. Firestone: *The Labour Value of the Building Dollar*, Ottawa, 1943). To get materials-used this ratio was applied to the earnings of the own-account workers, yielding a total of approximately \$66 million of construction work for this group in 1941.

After comparison of the amount of residential and trade construction reported in the Construction Census for 1941 with an estimate of the number of units built and 1941 costs, an arbitrary amount of \$15 million was added for building work done by homeowners not covered in the 1941 Census of Construction or in the work done by the uncovered own-account workers.

To put all data on a comparable basis, the ratio obtained in step (4), of materials-used to building construction, was then applied to the total of all building construction in 1941 to get material. This was deemed desirable as it would seem from the rather high proportion of materials-used given in the Construction Census that reporting companies include at least part of fuel and equipment costs.

(7) The index series of building materials-used, obtained in step (5), was then applied to the 1941 figure of materials-used, step (6), to get materials used in all other years.

(8) This was then divided by the ratio of materials-used to value of work-performed as determined in step (6) above to give the amount of building construction in the years 1926-1940.

(9) This construction work includes both new construction and repair and maintenance work. The Census of Construction makes a division between "new construction" and "alterations, maintenance, and repairs". Of building construction done by contractors, the proportion given as "alterations, additions and repairs" was accepted as the correct proportion for the whole. This is not entirely satisfactory as "alterations" include some major jobs. Offsetting this is the fact that the ratio of repair work in trade construction is higher than that for main contractors. A check with other estimates of construction in 1941 (see p. 120) indicated the figure for "new" construction obtained in this way was satisfactory for that year. The above ratio of maintenance and repair work to total building construction by contractors was calculated for each year from 1934 to 1941 and a series of the proportion of work of a repair and maintenance nature was thus obtained. This was projected backward on the assumption that the ratio would be the same for comparable years over the business cycle. The ratio of repair and maintenance work to total work was then applied to building construction as obtained in step (8) to get a division between new and repair and maintenance work.

(10) It was known that this estimate did not include certain repair and maintenance work done by homeowners and by industry with its own maintenance and repair staffs. A statement of repair and maintenance outlay by occupants of non-farm dwellings, based on a 10 per cent sample taken in the 1941 Decennial Census, was provided by the Prices Branch, D.B.S. (This would not, of course, include repair work done by landlords). Much of this was undoubtedly done by tradesmen already covered, but a substantial part represents materials used by occupants for work done themselves.

On the basis of comparison of the amounts of building materials used on farms for 1940, and a comparison of the number of farm units (including all farm buildings) with the number of non-farm units, it was decided to take an amount of materials used in 1941 by homeowners equivalent to approximately half that used on farms. This amounted to approximately three-eighths of the total repair and maintenance outlay reported by the occupants of non-farm dwellings or \$15 million.

In industry, the Decennial Census of 1931 gave the numbers of tradesmen of various kinds employed by manufacturing industries, trade and service. In some of the industries, such as blacksmiths in the iron and steel groups and carpenters in the wood-using industries, the tradesmen would be engaged in making the product of the industry and were treated as doing such. For other industries, however, all tradesmen were considered as doing repair and maintenance work on the premises of the manufacturer.

The number of man-hours lost among these employees was obtained by comparing, for all trade workers, the number shown as unemployed with the number of weeks lost during the year and applying the ratio of man-hours lost among all construction workers to those engaged in the manufacturing, trade and services industries.

No figures were available for 1941 giving the breakdown of tradesmen in industry at the time these calculations were made. Projections of the man-hours of employment for 1941 were made by applying the ratio of the increase in employment in the particular industry, from 1931 to 1941, to man-hours employed in the industries covered in 1931. In the projection, allowance was made for changes in relative amounts of unemployment in 1931 and 1941. The average wages were assumed to be the same as that reported for workers in the Construction Census in 1941. An allowance was made for materials on the arbitrary basis of material cost being one-third of labour costs. These repair costs would include some repair work on machinery. This does not cause duplication, however, as no labour cost for machinery maintenance and repair in these industries is allowed elsewhere. The total thus added in 1941 was \$17.5 million.

These two items of \$15 and \$17.5 million, respectively, were then projected backward to 1926 by applying an index derived from the repair and maintenance series obtained in step (9). This repair and maintenance series does not correspond exactly to the series which would have been obtained by applying an index of all building construction. Hence an index of all building construction was also applied to the 1941 figure to obtain estimates back to 1926. The difference between the first series thus obtained and the second was subtracted from the amount of new investment as obtained in step (9).

Item 1—Building Construction, Urban Residential.—This item covers only building construction in purely urban communities. It was obtained as follows:

A series of the number of new units, except for 1940, was estimated in Advisory Committee on Reconstruction: *Housing and Community Planning*, Ottawa 1944, pages 32 and 135. An index of building material costs was obtained in the same study, page 254. An index of wage rates in the building trades as compiled by the Department of Labour was available in D.B.S.: *Canada Year Book*, 1944, page 731. A composite index was then computed on the basis of a weight of 38.9 per cent for labour and 61.1 per cent for materials. These weights were obtained from an estimate of building costs of N.H.A. housing. (See *Housing and Community Planning*, page 227). No weight was given to profits as it was not known how an index of profits would move.

The average cost of housing built under the Dominion Housing Act, 1935, and the National Housing Act, 1933, from 1935 to September 1943 was \$3,924. This average was obtained by consideration of nearly all units built in the period. On the basis of the distribution of the amounts of building over these years and the building construction index, cost for 1940 for this type of unit was established at approximately \$4,000. Therefore an even \$4,000 was accepted as building cost in 1940. The index of building construction costs was applied to this to get an average cost for other years and these were then multiplied by the estimate of the corresponding number of units built. A value for 1940 was estimated arbitrarily at about the 1939 figure.

Item 2—Building Construction, Industrial, Commercial, Institutional, Public Utility and Other.—This was obtained by subtracting from the total of new building construction that done on urban residential and on mines.

Item 3—Farm Materials Used.—In the 1941 Decennial Census farmers were asked the amounts of building materials which they had bought during the year 1940. To obtain an index to be applied to this to get estimates for other years, an index of retail sales of lumber and building-material companies was combined with an index of net farm income on the basis of weights of 0.6 and 0.4 respectively. (Retail sales of lumber and building materials are made largely in rural areas.) A separate estimate for fencing materials was available by use of the supply method and only non-fencing materials were covered in the manner described. A breakdown between new and repair and maintenance was obtained by application of a series on the overall ratio of repair and maintenance work to total work as given in the Census of Construction. Nothing is included in the estimates in this study for labour nor for all the farm improvement work on land clearing, drainage and other such items.

Item 4—Construction in Woods Operations and Mines.—In the Capital Schedule Survey taken in 1941, capital expenditures on construction and machinery and equipment were obtained for a sample of woods operators. This was increased according to the ratio of revenue of the operators covered to total revenue of all woods operators, the latter being obtained in D.B.S.: *Estimate of Forest Production, Operations in the Woods in Canada*. No series was available on investment items and so the 1941 figure was projected to other years on a series compiled from gross revenue. Since most of the construction work is done in remote regions, it was assumed that this estimate of construction was not included in the total estimate of building construction obtained above. A split between machinery and equipment for years prior to 1941 was obtained on the basis of the division in 1941.

Mining expenditures are based, in part, on information from a questionnaire sent to mining companies (excluding coal mines) in 1940, by the Mining, Metallurgical and Chemical Statistics Branch, D.B.S. Construction outlay for 1940 and an estimate of outlay on plant and equipment for a series of years running back to 1926 was obtained. The estimate for years prior to 1940 could not be taken as the absolute amount of expenditure in those years, but, when adjusted for coverage on the basis of production, it was used as a series. Expenditures on machinery and equipment were available in the estimates of producers' durables and, for 1941, in the Capital Expenditure Survey. Coal mines were obtained by using company accounts and extending coverage on the basis of the proportion of revenue of reporting companies to that of all companies.

Item 5—Engineering Construction, Public Utilities and Government.—This item was obtained directly from the Public Accounts for the Government (see Section 4). For the utilities, building construction was subtracted from total construction to give engineering construction.

Item 7—Repairs and Maintenance, Residential Construction.—This was obtained by application of the ratio of "Repair and Maintenance" to "New" given in the Census of Construction Reports.

Item 8—Industrial, Residential, Commercial, Institutional, Public Utility and Other, Repairs to Building Construction.—This item was obtained by subtracting from the amounts for total building repair work, all that done in other groups.

Item 9—Farm Materials, Repairs.—See Note to Item 3 of this section.

Item 10—Woods Operations and Mines.—Repair and maintenance work in woods operations was given in the Capital Schedule Survey undertaken in 1941. This item was projected backward on the basis of gross revenue of woods operators.

Repairs and maintenance expenditures by mines were given in the Capital Expenditure Survey of 1941. This figure was adjusted for coverage and a series obtained by a projection backwards on a basis of annual values of mineral production.

Item 11—Engineering Construction.—Government repair work was obtained directly from government accounts and utilities from utility reports. See Sections 3 and 4 respectively.

GROSS INVESTMENT AND REPAIRS, PRODUCERS' DURABLE GOODS, BY TYPES, TABLE 6a

Producer durables contain all machinery and equipment used by business for productive purposes. Machinery and equipment used in manufacturing war equipment are included but the actual implements of war are excluded.

In the computation of the items in this table, two general methods were used. In the first method, figures of sales to final users were available, in which circumstance they were used if believed sufficiently comprehensive. Appropriate freight or commission was added where necessary, to cover the margins between point of sale and point of final delivery.

The second method involved: first, subtracting exports from current production and adding allowances to the resultant figure for taxes, freight, commissions, and trade margins; second, adding the value of imports with allowances for import duties, other taxes, freight and distributive margins.

To obtain sales to final users the above quantities should have been adjusted for changes in finished inventories of them in the hands of business. It was not possible, except in odd cases, to do this as the information available is on an industrial basis only and in addition gives a breakdown between finished and other commodities in only three of the 16 years covered. In these cases it was found that finished commodity inventories did not move by the same relative amounts or even in the same direction as total inventories. Except in unusual circumstances the changes of inventories of finished commodities would be relatively small as a large part of these goods are produced on order.

Production figures were obtained from the alphabetical product lists, D.B.S.: *The Manufacturing Industries of Canada, Summary Report*. This gives products individually on a commodity rather than on an industry basis. The separation between finished goods and component parts is very good. Some products are used for producer, intermediate and consumer purposes. In general, however, the producer durables are very well segregated and it was necessary to split quantities for only a very small portion of the commodities. Where division of products was necessary, information available in the D.B.S. Census of Merchandising was used where available; checks were made with Kuznets' experience, and in some cases information was obtained from discussion with distributors. Repair parts were included in the first computation and were then removed as indicated below.

Exports on a calendar year basis, are available in D.B.S.: *Trade of Canada*. Exports are valued at cost at the point of original shipment. As these are in large part made by manufacturers themselves it was felt that the values given were close to those of the production figures. The fact that they are small in amount for commodities computed by this method also means that any error from accepting export values as given is small. In general the export classification is fairly satisfactory for segregating specific finished goods.

Imports on a calendar year basis are also obtained from D.B.S.: *Trade of Canada*. To this was added import duty, also given in *Trade of Canada*. Prior to 1939, duty was available on a fiscal year basis (ending March 31) and was adjusted to the closest calendar year for individual commodities on the basis of the ratio of imports for the fiscal year to imports for the calendar year. Re-exports were deducted and an allowance made for duty rebates on the basis of the ratio of re-exports to imports.

Two problems are encountered with imports. First, as a tariff classification of commodities is used, component parts are sometimes included with finished products. Second, imports are sometimes valued at other than actual cost. It was impossible in the time available to examine the thousands of customs invoices that might have given the required information. It is felt that the first difficulty is largely overcome by exclusion of items known to be mainly component parts but which also included some finished commodities. This would offset items, mainly finished in form, but which included some parts. For commercial vehicles and agricultural implements, two of the items in which parts are most important, sales figures were used or were available for checking purposes.

The distribution of manufacturers' sales among those made direct to the final users, those made to wholesalers and those to retailers was made on basis of information collected in 1931 in the Census of Merchandising and Service Establishments regarding the disposition of manufacturers' sales in 1930. Some of this information is contained in D.B.S.: *Census of Canada 1931*, volume 11.

Detailed information on freight charges was not available. Such information on various types of commodities was computed for the United States by Simon Kuznets; these rates, with slight increases for the greater distances in Canada, were applied to values at manufacturers' or importers' cost. Since freight is based on weight, in large measure, rather than on value, cyclical changes in the ratio of freight cost to value have been allowed for by varying the rate, from year to year, inversely as an index of prices of producers' equipment compiled in the Prices Branch of the Dominion Bureau of Statistics.

Sales and other taxes (excluding import duties) were added by applying the rates applicable to the different commodities. The rates were obtained from statutes and by direct information from the Department of Finance.

Distributive margins were obtained in two ways. First, in 1934, 1935, 1936 and 1937 information was collected by questionnaire by the Merchandising and Services Branch of D.B.S. showing margins for a number of types of dealers. The second method was based on the computation of dealer costs, including profits, obtained in the Decennial Census for 1931 and 1941. From this Decennial Census cost data and from the reported

trade margins from 1934 to 1937 it was possible to make an estimate of changes in trade margins over the business cycle. On the basis of the trends indicated by these data, margins were slightly higher in years of low trade than in more prosperous years. For 1936-37 margins, see D.B.S.: *Miscellaneous Statistics on Retail Trade* and *Miscellaneous Statistics on Wholesale Trade*.

The method of obtaining investment in equipment by adding taxes, freight and trade margins to production plus imports minus exports, for the sake of convenience, is called the "supply" method hereafter. Owing to lack of sufficient information no allowances were made for installation costs of machinery and equipment.

The calculation of these items was performed in the Business Statistics Branch of D.B.S.

Item 1—Industrial Machinery and Equipment.—This item is based on use of the supply method as described above. It contains machinery used in manufacturing and processing and includes smelter machinery. The information available indicated that about 80 per cent of the production, less exports, went directly to final users and about 20 per cent to wholesalers. None of this material went through retail hands. A commission of 5 per cent on manufacturers' direct sales was added: this rate was based on Decennial Census material indicating the ratio of commission to total volume of business for private commission merchants and was corroborated by discussion with officers of the General Purchasing Branch, Machinery, Tools and Hardware Section of the Department of Munitions and Supply; wholesale margins were obtained from the merchandising data collected in 1934 to 1937.

Item 2—Electrical Machinery and Equipment.—This includes only items to be used for electric generating and distributing stations and systems. The supply method was used. Disposition by distributive channels was assumed to be the same as in Item 1. Margins were determined by use of information on operating costs of wholesalers, given in the Decennial Census reports for 1931 and 1941 and on representative discounts as shown by manufacturers' catalogues.

Item 3—Mining and Oilwell Machinery and Equipment.—This includes all purely mining machinery and milling equipment and the portion of smelting equipment used by mining companies. The supply method was used; freight was placed at the relatively high level of 10 per cent, in view of the fact that the mining regions are remote and that much of the mining machinery is imported; margins were based on Decennial Census information of operating expenses of machinery dealers and on information in manufacturers' catalogues.

Item 4—Locomotive and Railway Cars.—Again, the supply method was used. No allowance was made for freight or trade margins since much of the equipment is made by the railways for themselves, and it was believed that the values reported by other manufacturers were those at which sales were made.

Item 5—Ships and Boats.—The supply method together with allowances for excise and war exchange taxes was used. Unrecorded imports of ships were obtained from the International Payments Branch of D.B.S. No allowance was made for margins except on a relatively small volume of fishing boats, life boats and others of that type included in the total, and for sales taxes where applicable. Calculations were made on a

delivery basis which accounts for the low volume in 1941. Changes in the amount of work in progress are covered in inventories. Naval vessels are not included.

Item 6—Vehicles.—Only commercial vehicles are included. Sales of new commercial vehicles collected by the Merchandising and Services Branch of D.B.S. in 1930 and 1932 and subsequent years are the basis for these calculations. See D.B.S.: *Sales of Motor Vehicles and Motor Vehicle Financing in Canada*. These sales figures did not include trailers and business wagons which were added by the supply method. Margins were also added for sale of used vehicles although, of course, the part representing the purchase price of the used vehicles by the dealer was not included.

Estimates of volume of new vehicles were also computed for all years from 1926 to 1941, by the supply method. Average margins were obtained by comparing this series with the sales series for the years for which it was available. These margins were applied to the supply figures to obtain estimates for the years for which direct sales were not available. Allowance was made for a substantial inventory decline in 1930 as indicated by the difference between figures with the empirical margins applied and sales figures.

A survey undertaken for the year 1937 by the Merchandising and Services Branch, D.B.S., (see D.B.S.: *Motor Vehicle Retailing in Canada*) indicated that the average price realized on used vehicle sales was about 30 per cent of that on new vehicle sales. Since the commonly accepted ratio of new to used vehicle sales is one to one, the sales of used vehicles were assumed to be 30 per cent of those of new vehicles.

For 1930 this estimate yielded 5.9 million dollars as against a decennial census figure of 4.4 million dollars. Since the coverage of the census was believed to be low in 1930 and since a tendency to underestimate is observed in most census data the former figures are not believed to be excessive. On the basis of information furnished by the Wartime Prices and Trade Board the re-conditioning and overhead expenses and profit were assumed to be 62 per cent of the sales value.

Military vehicles are not included.

Item 7—Aircraft.—This includes aircraft produced for civilian use only. For the years 1938 to 1942 figures on investment in aircraft and aircraft engines, obtained by questionnaire in the Transportation and Public Utilities Branch of the Dominion Bureau of Statistics, were used in place of the supply figures. Since in these years a marked portion of production was for military use, this could not otherwise be segregated satisfactorily. For other years the supply method was used.

Item 8—Farm Machinery and Equipment.—Since 1936 sales of farm machinery and equipment have been collected from the main distributors by the Merchandising and Services Branch of D.B.S. e.g. (see D.B.S.: *Sales of Farm Implements and Equipment in Canada*). To these figures were added agents' commissions and freight charges from wholesale distribution points to the farm, and estimated sales, based on the supply series, of harness and saddlery. The supply method was used for years prior to 1936, comparison of the supply and sales figures for the years 1936 to 1941 indicating the approximate wholesale margin on this class of equipment. Agents' commissions and final freight were available from information collected from the Merchandising and Services Branch of D.B.S. based on returns from dealers.

Item 9—Professional and Scientific Equipment.—This includes items used for scientific research, for survey work, for use by dentists and doctors, and for other professional work. The supply method was used. In the years 1940-1941 the war portion was excluded based on a rough division between war and non-war determined by the nature of the various items in the group and the values prior to 1939.

Item 10—Office and Store Equipment, Machinery, Furniture, Fixtures.—This includes furniture and equipment of a nature used in offices, and store furniture, equipment and fixtures. The supply method was used.

Item 11—Carpenters' and Mechanics' Tools.—The supply method was used.

Item 12—Durable Containers.—These include containers of a movable nature that can be re-used several times. It does not include large storage tanks. The procedure adopted corresponds to that used for Item 1.

Repair Parts and Repair Work

Item 14—Industrial Machinery and Equipment.—The ratio of parts for repair to total production of industrial machinery and equipment in the United States was obtained for 1927, 1929, 1931 and 1933 by Kuznets. This was applied to the Canadian production figure for those years. Estimates were then interpolated and extrapolated to cover the whole period by using an index of repair work performed in the iron and steel industries (excluding ship repair and locomotive and railway car repair). Margins and freight were then added.

Item 15—Electrical Machinery and Equipment.

Item 16—Mining Machinery and Equipment.

Item 19.—Office and Miscellaneous Machinery and Equipment.

The same ratio as used in Item 14 was applied to the totals including parts to obtain the repair parts.

Item 17—Locomotives and Railway Cars.—Repair parts were based on production, export and import statistics.

Item 18—Farm Machinery and Equipment.—Repair parts for farm machinery and equipment were obtained from questionnaires sent to the distribution branches of the principal manufacturers by D.B.S. in connection with farm income estimates.

Item 20—Repair Work to Ships.—This is obtained in the Manufacturing Census. It includes the value of both material and labour used in ship repair. Naval vessels are excluded.

Item 21—Miscellaneous Repair Work.—This includes miscellaneous custom repair work done by the iron and steel industry collected in the Manufacturing Census. It does not include repair work on locomotive and railway cars.

General Note.—As with the figures for Items 1 to 12, repair parts for mining machinery equipment, electrical machinery and equipment, locomotive and railway cars, are not included with the repair parts in Item 4 of Table 2. These repair parts would be already included in the repair and maintenance for utilities, mines or for agriculture.

VALUE OF THE PHYSICAL CHANGE IN INVENTORIES, BY TYPES, TABLE 7a

In gross domestic capital formation and gross investment, the entry made for inventories is the value of physical change in inventories. Inventories are valued in this way, for purposes of measuring capital formation, to eliminate changes in book values associated with price change. In a period of rising prices the change in book value of inventories includes an item for higher values of the amount of physical inventory held at the beginning of the year. The converse is true if prices are falling. Since these changes in value do not involve any physical capital formation, they should not be covered. Items in Table 7a are the value of the physical change in inventories.

Item 1—Manufacturing.—Total book values of manufacturing inventories at December 31st of each year are obtained in the Census of Manufactures taken each year by D.B.S. This reported value is at the lower of cost or market.

In a period of declining prices, value is at market prices. The adjustment to obtain value of the physical change involves: first, deflation of year-end values by use of a price index; second, obtaining the change, during the year, in the deflated inventory value; third, putting the value of physical change in constant prices back into current prices by multiplying by a price index of average prices for the year.

If prices are rising, inventory will be valued at cost. Several steps then become necessary in obtaining the value of the physical change of inventories. First, the period of inventory turnover is obtained by taking the proportion of reported inventory values to the average of raw material costs and value of gross output. The proportion derived above multiplied by 365 yields a turnover rate or inventory-life in days. The book values of inventories at the end of the year would be based on the prices which had prevailed one inventory turnover period before the end of the year. Relatives were then obtained by dividing the price index at the end of the year by the price index at which the inventory was valued. Next, inventories at market value were obtained by multiplying inventory at book values by this relative. These inventories at market value were then deflated by a price index, the differences in deflated values were taken and these differences were put back into current prices by multiplying by an index of average prices for the year. For a more detailed explanation of the method see T. Barna: *Valuation of Stocks and National Income*, Economica, November 1942. No index for manufacturers' prices was available. Hence wholesale price indexes were used.

Items 2 and 3—Wholesale Trade and Retail Trade.—Since 1930, inventories at the end of the year are obtained by questionnaire in the Merchandising and Services Branch of D.B.S. Prior to that year estimates had to be made on the basis of assuming a constant inventory turnover rate, determined by the data available for later years, and relating this to volumes of sales which were collected in the Merchandising and Services Branch. The steps in obtaining the value of the physical change are the same as for manufacturing inventories. For the wholesale trade inventory, which excluded grains, a special wholesale index excluding grains was prepared by the Prices Branch, D.B.S. For retail inventories, a retail price index was used.

Item 4—Mining, Utilities and Miscellaneous.—These figures are collected annually by the Mining and Metallurgical Branch for mines and the Transportation and Public Utilities Branch for public utilities. The same method was used as for manufacturers' inventories, except for mining where the change in book value was used. Small amounts of miscellaneous inventories, not available directly, were estimated on the basis of the ratio of these to other inventories as determined by the Bureau of Internal Revenue, U.S. Government.

Item 6—Grain in Commercial Channels.—Records of inventories of grain in commercial channels are available in D.B.S.: *Report on the Grain Trade of Canada* and in weekly reports to D.B.S. The actual change in the number of bushels held at the various points is given, and for many although not all points, it is graded. Value of the physical change of grain inventories was obtained by multiplying this physical change by average prices for the year. These average prices are given for Fort William and Port Arthur and for some years for Vancouver in the above report also. Prices at other points were determined by freight rates charged between these points and Fort William and Port Arthur.

Item 7—Grain on Farms.—The physical quantity of grain on farms is determined from questionnaires returned by a sample of farmers to the Agricultural Branch, D.B.S., giving stocks at July 31st, the end of the crop year. To obtain year-end quantities, the current crop was added to the July 31st figure and marketings by farmers were subtracted. This does not allow for grain fed to livestock in the period August 1st to December 31st, but except in unusual circumstances the amounts would not change substantially from one year to the next. The changes in stocks were valued at average prices for the year obtained by questionnaire from farmers.

Since 1931 the numbers of head of livestock at the year-end have been collected on a sample basis by questionnaire. These were valued at current farm prices obtained in the same manner. Prior to 1931 the number of head of livestock was obtained at June 1st. To obtain a year-end value averages of June figures were taken.

With the exception of *Grain in Commercial Channels*, the inventory changes were compiled by the Business Statistics Branch, D.B.S.

BALANCE OF INTERNATIONAL PAYMENTS, CURRENT TRANSACTIONS, TABLE 8

Only the net surplus or deficit on current account is included in gross investment. However, the current level of economic activity is affected not only by the amount of the net current account balance, but also by the absolute level of both current credits and debits. Hence total current account credits and debits are shown as well as net balances.

From 1937 to 1943 all items from 1 to 19 in Table 8 (a), are available in D.B.S.: *The Canadian Balance of International Payments, 1937-1943, Revised Statements, 1937-1942, and Preliminary Statement, 1943*. In that publication detailed descriptions are given of the items and their method of calculation. Estimates for the period previous to 1937 were published in D.B.S.: *The Canadian Balance of International Payments*, Ottawa

1939. However, experience gained in more recent years indicated that the estimates for some of the invisible items were rather high. Revisions to these have since been made in the International Payments Branch, D.B.S. The revised estimates are included in this table.

Attention is drawn to the way in which gold is treated. All current production in Canada is treated as an export and hence it increases the foreign current account credits. Imports and exports of monetary gold are treated as capital account items. This method eliminates the necessity for showing a separate figure in gross investment for changes in the monetary gold stock. If, for instance, an import of gold had been entered as a current account debit item in foreign trade, the net balance on foreign current account would have been decreased by that amount. Offsetting this would have been an increase in monetary gold stock in Canada by an equal amount. The converse applies to the export of non-monetary gold.

SECTION 3

PUBLIC UTILITIES

COMPUTATION OF GROSS INVESTMENT AND MAINTENANCE BY UTILITIES

For the items included under Public Utilities see Schedule C on page 15. Since the methods of computing the capital expenditures of public utilities were similar for Dominion, provincial, municipal and private public utility expenditure, it is convenient to describe them by type rather than by the items of the tables.

Steam Railways

Included are expenditures by all steam railways on Canadian lines. For compilation, steam railways were divided into public and private. Since for comparative purposes it was desirable to keep a company in the same ownership category, although it might have shifted from one to the other sometime during the period, the division was made on the basis of status in 1941. Railways operated jointly by the C.P.R. and C.N.R. are included with public.

Prior to 1940 most steam railway companies did not use the accounting device of recovering outlay on capital equipment through depreciation charges. (Since 1940 for equipment, and 1942 for road, depreciation accounting has been used). Rather replacements or retirements of capital items were charged to Maintenance of Way and Structures and Maintenance of Equipment accounts. (In certain cases retirements were used instead of replacements—retirements include value of equipment and road taken out of service even though it might not have been replaced.) This replacement expenditure should actually be included as capital outlay. Hence in the case of the steam railways they were treated as a part of capital outlay and removed from the maintenance accounts.

Expenditures by the Canadian National Railways from 1926 to 1941 for capital outlay were obtained by direct correspondence with the Company. Only the Canadian lines of the C.N.R. are covered. Gross capital expenditures were divided between additions to capital and replacements of retired capital items.

For the remainder of the public steam railways, the additions to capital (that is, that part not for replace-

ment) were available from reports made directly to the Transportation and Public Utilities Branch of the Dominion Bureau of Statistics. This showed both equipment and other items. These items, as given, sometimes had to be adjusted for write-offs and particularly for those shown under the item "Loss on Retired Road and Equipment" in the Income Account "Disposition of Net Corporate Income" given in D.B.S. *Statistics of Steam Railways in Canada*. Replacement figures for equipment were obtained from the replacement items shown in the "Maintenance of Equipment" accounts given in the above-mentioned report. As it was not possible to obtain a figure of replacement of road and other construction items in this manner, replacements were obtained by applying the ratio of C.N.R. replacements of non-equipment items to the total C.N.R. "Maintenance of Way and Structures" to "Maintenance of Way and Structures" for these other public roads.

Among the private companies, Canadian Pacific capital outlay on Canadian lines, for the years 1926, 1929, 1930, 1933, 1937 and 1941 was obtained by direct correspondence with the Company. For 1928 interpolation was done on the basis of statements given in the Annual Reports. For 1927, total equipment was obtained by checking the figure for railway equipment for all steam railways against that obtained on a supply series basis (see Section 2).

Annual Reports of the C.P.R. were used also for 1931 for new capital equipment. For 1932, 1935, and 1936 estimates of new expenditure were based on the information available in the Transportation Branch of the Bureau of Statistics. In some cases where it appeared that this information was not reliable owing to write-offs having been made, interpolation on a straight-line basis was used. Retirements of road and equipment for 1931 and 1932 were made on the basis of straight-line interpolation and a similar check of all public and private capital railway equipment against the amount shown in the supply series. For 1934, 1935 and 1936 interpolation of replacements was made on a straight-line basis. Expenditures for 1938, 1939 and 1940 were obtained from the Annual Reports of the C.P.R. on the basis of main appropriations made for the year, supplementary appropriations the next year, and checking this against data in the capital accounts. The division between new and retirement was made on the basis of the information for new capital investment available at the Bureau of Statistics.

The "other" private electric railways were treated in exactly the same manner as the "other" public steam railways in all cases.

Repair and maintenance expenditures of the steam railways are available in the "Maintenance of Way and Structures" account and the "Maintenance of Equipment" account in D.B.S.: *Annual Report on the Steam Railways of Canada*. Certain items within these accounts were eliminated as they did not include capital items but were rather charges for other purposes.

Since these accounts include the replacements which were transferred to capital account in this study, the replacements of way and structures were subtracted from the "Maintenance of Way and Structures" account and the replacements of equipment, except in 1940 and 1941, from the "Maintenance of Equipment" account.

The Hudson Bay Railway is included in these tables but was removed from the utilities for 1926-1930 when entered in Table 1, as it is also covered in those years in direct government investment.

Electric Railways

Electric railways use a depreciation system of accounting; therefore no transfer of items from repair and maintenance accounts to capital account was required.

For the publicly owned electric railways, information was obtained directly from most of the companies for the six years 1926, 1929, 1930, 1933, 1937 and 1941. For some of the very few companies on which information was not available, material was obtained from the Transportation Branch of D.B.S. by examination of changes in capital accounts. Complete coverage was obtained by adjusting on the basis of the ratio of revenue of covered companies to total revenue. Capital expenditure of the Toronto Transportation Commission was available for all years from 1926 to 1941. To interpolate for the other public companies for years not covered, the proportion of capital expenditure of the Toronto Transportation Commission to that of all other public electric railways for the six years was first computed. These percentages were then interpolated on a straight-line basis between the years for which the complete information was available, and the capital expenditure was obtained by applying the ratio secured to capital expenditure of the Toronto Transportation Commission. The Dominion, provincial and municipally owned electric railways were all treated in the same manner.

The breakdown between machinery and equipment and construction work was available for the Toronto Transportation Commission in all years and for the other publicly owned companies in the six years. The proportions for the "other" companies in the six given years were then applied to the year's capital expenditures for the years obtained by interpolation. Maintenance and repair expenses were obtained from the "Maintenance of Way and Structures" account and "Maintenance of Equipment" account given in D.B.S.: *Statistics of Electric Railways of Canada*. Certain items in these accounts were omitted as they do not involve repair expenditure. Some of the repair expenditure on buses operated by the electric railways, has not been included as it has been charged to "Other Transportation Expenses" in the account "Conducting Transportation".

For the private electric railways, reports were available by direct correspondence with Montreal Tramways and the B.C. Electric Power Company for all years. In addition reports were obtained from most of the other private companies for the six years noted above. Complete coverage was obtained on the basis of the proportion of revenue of the reported companies to total revenue of all private companies. The interpolation was done in the same manner as for the publicly owned electric railways using the figures for Montreal Tramways and B.C. Electric Railways as the continuing series. The division between equipment and construction was available for the large companies, that for the smaller companies was assumed to be the same as for the smaller publicly owned companies for which the information was directly available.

Repair and maintenance expenditure was available, as before, in D.B.S.: *Statistics of Electric Railways of Canada*.

Telephones

Telephones are divided among private, provincial and municipal. A large number of small co-operative telephone companies has been included with the private. The Dominion Government operates a very small system in connection with its national parks but the amounts of expenditure were so small as not to warrant being shown separately.

Estimates for four private companies were obtained directly from company accounts or annual reports for all years. The Bell Telephone Company reported its capital expenditure in its annual report. Expenditures of the Maritime Telephone and Telegraph Company were obtained for all years by examination of balance sheets and operating expenses; the use of these data involves adding to the change shown each year for plant and equipment, the difference between the depreciation charges and the increase in depreciation reserves and adjusting for write-offs. Expenditures of the New Brunswick Telephone Company and the B.C. Telephone Company were available from 1936 to 1941 and from 1930 to 1941 respectively from balance sheet and operating account data.

Estimates for the Manitoba, Saskatchewan and Alberta provincial telephone systems were also obtained by using balance sheet and operating account data. This information was available in the public accounts, in annual reports, or as collected for purposes of the Royal Commission on Dominion-Provincial Relations (Rowell-Sirois).

Total capital expenditure of all telephone companies was estimated on the basis of the proportion of revenue for the companies covered to all revenue as given in D.B.S.: *Telephone Statistics*.

Since coverage of the provincial systems is complete, the difference between their outlay and the total is that of private and municipal companies. Information available in the Transportation Branch and Public Utilities of D.B.S., based on direct reports by the telephone companies gave the breakdown between municipal, provincial and private from 1937 onward. The ratio of municipal to private for 1937 was applied to total capital expenditure for municipal and private companies in other years to obtain municipal expenditure on telephones. By far the major portion, of course, is private.

The figures for outlay on repair and maintenance from 1933 to 1941 were obtained from questionnaires submitted annually to Canadian telephone companies by the Transportation and Public Utilities Branch of D.B.S. This information was not available for the years 1926 to 1932. To obtain an estimate for these years, the proportion of repair and maintenance work to total operating expenses in 1937, was applied to operating expenses from 1926 to 1932. All capital expenditure was regarded as construction work, as it is difficult to make a separation between construction and equipment. To prevent duplication, no telephone equipment was included with the Producers' Durables (Table 6). The companies would purchase some office equipment, trucks and cars, but segregation of these items was impossible.

Electric Utilities

Electric utilities and power companies are divided into public, including provincial and municipal, and private. Separate estimating methods were used for the two types of companies.

For the Ontario Hydro-Electric Power Commission, information on capital expenditure by the Central Electrical Stations and for the municipalities in the system was obtained from the annual reports of the Ontario Hydro-Electric Power Commission. Capital expenditure was computed in two parts, addition to capital and replacement expenditure. For the Central Electrical Stations new capital expenditure was secured, for 1926 to 1934, from the "Appropriations, Advance and Capital Expenditures Accounts", for each year, for each system. Deductions were made for expenditures on rights of way. For 1935 to 1941 inclusive, the addition to capital was obtained from the "Annual Net Capital Expenditures" for each system in the "Statement of Fixed Assets".

Replacement expenditure was secured from 1926 to 1935 and for 1940 and 1941 from "Capital Expenditures for the Year" out of "Reserves for Renewals Fund". For 1936 to 1939, inclusive, replacement expenditure for the year was obtained from the account "Provision for Obsolescence and Depreciation". Expenditures out of contingency funds were not included owing to the fact that though some of these might be for capital expenditure, for instance storm damage, many other types of items are included.

For the municipalities of the Ontario Hydro-Electric Power System, annual capital expenditures were obtained by adding to the change in the amount of capital on the books in the consolidated balance sheets at year beginning and year end the annual replacement expenditures as determined by taking the difference between the annual depreciation charge and the annual increment to the depreciation reserve funds. Between 1939 and 1940 an adjustment was made for write-off on a plant in Toronto and wherever information was given, deductions were made for expenditures on acquisition of right-of-way.

Expenditures for the provincial commissions in New Brunswick, Manitoba and Saskatchewan were obtained by direct correspondence with the companies. For the Nova Scotia Electric Power Commission, expenditures were obtained from the public accounts of Nova Scotia by examination of work orders as given therein. Estimates of outlay for all publicly owned electric utilities were then made on the basis of revenue of covered companies to total revenue as given in D.B.S.: *Central Electric Stations in Canada*. This was divided between provincial and municipal by deducting from the total thus obtained the expenditures of the Central Electrical Stations of the Ontario Hydro-Electric Power Commission Systems and those of the other four provincial companies.

Capital expenditures of the private electric utilities were obtained from direct correspondence with the larger companies and from information obtained from balance sheet statements for some of the smaller companies. Complete coverage was obtained by increasing the capital expenditures thus obtained on the basis of the proportion of net revenue of the covered companies to total net revenue of all private electric utilities.

The operations of private gas companies are not covered except those that are connected with electrical operations. It is believed, however, that a large part of the expenditure is accounted for in obtaining estimates of capital expenditure of the electric utilities.

Repair and maintenance expenditures in both public and private electric utilities were obtained as follows: In 1941 in the Capital Expenditure Survey (see Introductory Note to this Part) repair and maintenance expenditures were obtained directly from the companies. Some of the repair and maintenance costs of Ontario Hydro municipalities were available in the annual reports. A series based on these, adjusted on the basis of the relation of revenue of the Ontario Hydro municipalities to total revenue, was obtained. This was applied to the 1941 figure to obtain repairs and maintenance for other years for all public companies. For the private companies it was assumed that repairs and maintenance would alter in relationship to total revenue in the same manner as for the public companies. Maintenance costs for 1941 were obtained from the Capital Expenditure Survey.

Some difficulty is encountered with the electric and power companies in making a division of capital outlay between construction and equipment, since the installation of much of the machinery involves extensive construction outlay. For years prior to 1940 machinery used by all electric and power companies was taken as the equivalent to the flow of electrical equipment, Table 6(a), Item 2. It was apportioned among all companies according to the proportion that the capital expenditure in each group bore to the total. For 1941 information obtained in the capital expenditure survey provided a breakdown. The same proportion was assumed for 1940.

The value of electrical equipment in Table 6 for 1941 and 1940 is greater than that used by the electric light and power companies, as a large part was used for purely industrial companies.

Other Dominion Bodies Treated as Utilities

Expenditures of Trans-Canada Airways and Bank of Canada were obtained directly from the two institutions concerned. Outlay of the C.B.C. was obtained by examination of balance sheet data; nothing was included for repairs and maintenance. Outlay of the Prince Edward Island Car Ferry was obtained from the public accounts. Estimates of expenditures by the Canadian Government Merchant Marine Ltd. and Canadian National (West Indies) Steamship Company were obtained from examining annual reports.

Municipal Waterworks and Other Municipal Public Utilities Not Yet Covered

Gross investment and maintenance expenditures in waterworks were computed for the year 1941 on the basis of financial reports issued annually by the municipalities and provincial departments of municipal affairs. Expenditures on capital and current accounts were added and the total was then divided into new investment and replacements, and repairs and maintenance expenditure, on the basis of a sample study of cases where detailed information was available. It was difficult to separate, with any degree of accuracy, expenditures for machinery and equipment from construction because installation of a great part of the machinery and equipment used in waterworks and gas companies requires a substantial amount of construction work.

SECTION 4.

PUBLIC INVESTMENT BY GOVERNMENTS

COMPUTATION OF GROSS INVESTMENT AND MAINTENANCE BY DOMINION GOVERNMENT

The computation of statistics on public investment (new and replacement) and maintenance and repairs for the years 1926, 1929, 1930, 1933, 1937 and 1941 was based on the reclassification of items contained in the Auditor-General's reports. Turning points of the last business cycle were selected as years for the original computation. While for private investment, the turn came in 1929, it was delayed for a year in public investment. For this reason, it was deemed advisable to make separate computations for both years. Fiscal years ending on March 31st were made the basis of the computation. Since, however, most of the construction work is carried out during spring to fall, figures on public investment are roughly comparable with those for private investment which are measured for calendar years.

In accordance with the definition of public investment as expenditures for durable physical assets, all items contained in the Auditor-General's report were reclassified to separate those which were connected with public construction, development and conservation of natural resources and the acquisition of durable producer goods (machinery and equipment) from other government expenditures.

Since the listing of expenditures on capital and current accounts did not always provide a satisfactory criterion as to whether the expenditure was a new or replacement investment or a maintenance or repair outlay, each item was classified individually depending on the purpose of the expenditure.

Items included under public construction comprised payments to contractors and builders, purchase of materials including transportation to the site, wage payments to day labour, foremen, inspectors, engineers working on the site. It was found necessary to make a separate estimate of the cost of plan preparation and administrative work connected with the carrying out of the individual projects because the head office expenditures listed in such departments as Public Works and Transport were frequently made for numerous other purposes than planning and supervision of public construction projects. With regard to expenditures for development and conservation of natural resources, total outlay for the individual projects was taken involving material purchases and salary and wage payments. Purchases of machinery and equipment included all items thus indicated as well as payments made to companies which could be identified as producers or sales organizations of machinery and equipment. This method does not preclude the possibility of the omission of some items but the expenditures thus not covered would be comparatively small.

Explanation of Items 1 to 13 of Table 17a

Item 1—Streets, highways and bridges.—This item includes expenditures on the construction and maintenance of highways and roads in national parks, the Ottawa Federal District, the Yukon and Northwest Territories and military highways. Dominion share-cost contributions for such projects as tourist and mining roads and the Trans-Canada Highway were

accounted for under provincial expenditures for highways and roads. Work on inter-provincial bridges, such as the Ottawa-Hull Bridge is included.

Item 2—Buildings and grounds.—This group comprises outlay for the construction and maintenance of public buildings of all kinds, including government offices, post offices, lighthouses, buildings on the Indian reserves, administrative buildings in the Yukon and Northwest Territories, armouries, drill halls, barracks and military hospitals.

Item 3—Watermains, sewers, dams and reservoirs.—This classification for the Dominion includes mainly construction and maintenance of dams under the Prairie Farm Rehabilitation Act and in the national parks.

Item 4—Docks, wharves, rivers, dredging, etc.—This item includes expenditures by the Department of Public Works, the Department of Transport and the National Harbours Board for construction and maintenance of docks and wharves. Substantial outlay is also made for dredging of rivers, harbours and canals. Some work is also done on the maintenance of river embankments.

Item 5—Other.—This group comprises all other engineering construction by the Dominion Government and some structural work. Such expenditures are made for the construction and maintenance of government-owned telephone and telegraph systems, drainage and irrigation under the Prairie Farm Rehabilitation Act, airports, flight strips, runways, radio transmitters and military shore installations.

Item 6—Public construction.—This item is a sub-total of items 1 to 5. It covers the total direct outlay (labour, material, machinery and equipment on construction carried out by the Dominion Government either through contract work or on force account).

Item 7—Planning and administrative expenses.—Supplementary expenditures for preparatory and supervisory cost (head office expenses only, since on-site supervision was included as part of the cost of the individual projects) were estimated at 8 per cent of total investment outlay. It was necessary to use such an estimate instead of the actual administrative expenses recorded in the Auditor-General's reports because the departments concerned with the execution of public investment projects were also responsible for the administration of numerous services which share in the over-all cost of administration.

Item 8—Public Works.—This item is the sum total of public construction and planning and administrative expenses.

Item 9—Natural Resources.—Expenditures on conservation and development of natural resources cover government services such as surveys (topographical, hydrographic, geodetic and geological), new construction and maintenance projects in the national parks and in the Yukon and the Northwest Territories (e.g., roads), forest and wild life protection, soil conservation, drainage, irrigation and water development under the Prairie Farm Rehabilitation Administration, fish conservation work such as the construction and maintenance of fish hatcheries and restocking operations, and development work done on experimental farms.

Item 10—Machinery and equipment.—This item covers (a) machinery and equipment listed under construction such as dredging plants and tugs, (b) machinery and equipment used in conservation and development work such as bull-dozers and trucks used by the Prairie Farm Rehabilitation Administration and (c) all other durable goods purchased by the Dominion Government. Included are the acquisition and maintenance of trucks and cars and other equipment required by the Post Office and the Department of National Defence in the execution of their duties. Further, all machinery and equipment required in the industrial war plant expansion program of the Dominion Government are included. Expenditures for direct war equipment such as guns, tanks and war materials such as ammunition have been omitted.

Item 11—Sub-Total.—This item is the sum-total of expenditures on public works, natural resources and machinery and equipment (items 8 to 10). It includes certain duplications which are eliminated in item 13.

Item 12—Duplications.—Since items 8 to 10 each represent the total expenditure for the respective categories, certain duplications have occurred: (a) some public works projects, such as irrigation work under the Prairie Farm Rehabilitation Act, included both in the Public Works series and Natural Resources series, (b) machinery and equipment used in construction, included both in the public works series and in the machinery and equipment series, and (c) machinery and equipment used in conservation and development work included both in the natural resources and machinery and equipment series. The figure shown in item 12 is the sum-total for all duplications.

Item 13—Gross investment and maintenance.—By eliminating the duplications (item 12) from the sum of the three components (item 11), total public investment, including maintenance, is arrived at.

ESTIMATE OF WAR INVESTMENT, 1939-1941

Item 1 of Table 15a and Items 6 and 10 of Table 17a.

Total investment by the Dominion Government during 1939 to 1941 includes expenditures made for war purposes and for non-war purposes. The former includes outlay for defence construction projects and government financed industrial plant expansion involving both expenditures for construction projects and the acquisition of industrial machinery and equipment. The estimate was based on information supplied by the Department of Munitions and Supply.

SUMMARY OF DOMINION WAR AND NON-WAR GROSS INVESTMENT AND MAINTENANCE

(Millions of Dollars)

Type	1939	1940	1941
War.....	13.3	227.7	393.9
Non-war.....	55.7	34.9	30.1
Total.....	69.0	262.6	424.0

ESTIMATE OF GROSS INVESTMENT AND MAINTENANCE FOR YEARS NOT COVERED IN ORIGINAL COMPUTATION

Items 1, 5 and 9 of Table 15a.

(a) Period 1926-1929.

An index was computed for this period based on data for public works expenditures, capital and current accounts, and certain items included under public domain listed in the Reports of the Royal Commission on Dominion-Provincial Relations, Public Accounts Inquiry. Taking 1929 as a base, this index was applied to total gross investment and maintenance, and an estimated expenditure for 1926 was arrived at. When comparing this estimate with the figure arrived at by actual computation, the margin of error was found to be less than 10 per cent. The trend thus established appeared satisfactory for interpolation purposes.

(b) Period 1930-1937.

A slightly different index from that used for the period 1926 to 1929 was computed, based on the same sources. A variation was necessary because of the inclusion of a number of transfer payments in the late 'twenties which had to be eliminated in an index applicable to somewhat different conditions of the 'thirties. Using the index computed, the likely margin of error in interpolation was found to be less than 10 per cent.

(c) Period 1937-1941.

The estimate of gross investment and maintenance for the years 1938 to 1940 not covered in the original computation was based on two components: (i) an estimate of non-war investment arrived at by interpolation with 1937 as a base, using certain items of public works expenditures on capital and current accounts as in index, and (ii) an estimate of war investment based on data supplied by the Department of Munitions and Supply for the years 1939 and 1940.

Division of totals for the period 1926-1941 into new investment and replacement and repairs and maintenance were arrived at by interpolation of the ratios available for the six years for which original computations were made. All war investment was classified as new expenditures.

Explanation of Items 1 to 5 of Table 17c.

Item 1.—Figures taken from item 13 of Table 17a.

Item 2.—All other government expenditures comprise outlay on public services and transfer payments. Data were obtained by subtracting gross investment from total public expenditure through government, capital and current accounts (item 3 less 1).

Item 3.—Total public expenditures through government, capital and current accounts, comprise all expenditures made by these governments irrespective of the source of funds employed. They are gross expenditures, obtained by adjusting upward net expenditures (item 5) for transfer payments (item 4).

Item 4.—Adjustment for inter-governmental transfer payments were obtained for the years 1933, 1937 and 1941 from Comparative Statistics of Public Finance, Dominion-Provincial Conference on Reconstruction, August, 1945. Figures for the years 1926, 1929 and 1930 were obtained from Auditor-General's Reports. (See item 5 for comments on comparability.)

Item 5.—Total public expenditure by government, capital and current accounts, for the years 1933, 1937 and 1941 was taken from Table 10, Comparative Statistics of Public Finance, Dominion-Provincial Conference, on Reconstruction, August, 1945. The figures for 1926, 1929, and 1930 were taken from the Auditor-General's Report, and comprise those items both on capital and current accounts which were used to make up net figures for the Comparative Statistics of Public Finance prepared for the Dominion-Provincial Conference, August, 1945.

It was not possible to make certain minor adjustments required to make the figures for 1926, 1929 and 1930 strictly comparable with those shown for the later years. However, differences on this count are minor in nature, and they do not affect to any appreciable extent the over-all picture.

Explanation of Column 2 of Table 30a.

The classification of Dominion public investment by provinces was based on a special compilation of the items listed in the Auditor-General's Report for the fiscal year ending March 31st, 1938. Wherever possible, the location of each expenditure was taken as given in the Auditor-General's Report. In cases where such information was not available, the respective Dominion Government department was consulted and, where possible, additional information was obtained to allow regional distribution of Dominion investment expenditures. In this way, it was possible to allocate about 75 per cent of total investment expenditures to the areas where such expenditures were made. The remainder was pro rated, with particular care being taken that expenditures applying to a few provinces only were divided among them and not the total for Canada.

COMPUTATION OF GROSS INVESTMENT AND MAINTENANCE BY PROVINCIAL GOVERNMENTS

The computation of statistics on public investment (new and replacement) and maintenance and repairs for the fiscal years ending nearest to December 31, 1926, 1929, 1930, 1933, 1937 and 1941 was based on a reclassification of items contained in the provincial public accounts. For the years covered, fiscal years varied for the different provincial governments ranging from a fiscal year ending October 31 to another ending June 30 of the next year. In the period covered, however, a tendency towards greater uniformity of the fiscal year ending March 31 could be noted, thus making inter-provincial comparisons more reliable for the later than for the earlier years. Further, since most of the provinces close their fiscal year during the winter months while the greater part of construction work is carried out during spring to fall, the divergence in fiscal year endings does not affect too seriously the measurement of the annual flow of provincial gross investment and maintenance expenditures.

In accordance with the definition of public investment as expenditures for durable physical assets, all items contained in the public accounts were reclassified to separate those which were connected with public construction, development and conservation of natural resources and the acquisition of durable producer goods (machinery and equipment) from other government expenditures. All departmental expenditures were scrutinized for this purpose because frequently capital outlay was not charged to the departments usually

responsible for carrying out the project but to those which would administer the project. For example, the construction of a new gaol would be recorded as expenditures by the Department of Justice although the plan preparation and actual construction might have been carried out under the supervision of the Department of Public Works.

Since the listing of expenditures on capital and current accounts did not always provide a satisfactory criterion as to whether the expenditure was a new or replacement investment, or a maintenance or repair outlay, each item was classified individually depending on the purpose of the expenditure. Connotation as given in the public accounts was used. Difficulties were encountered with regard to some improvement and alteration items. The following solution was adopted: Major improvements and alterations were included in gross investment, with smaller alteration jobs listed as repair and maintenance. Where such a distinction was indicated in the public accounts, it was used. Where not, expenditures connected with small projects of less than \$1,500 were considered as maintenance and repair items, with larger expenditures being included in gross investment. In connection with highway improvement work where no separation was indicated in the public accounts, auxiliary material, such as data for other years or information for similar projects in other provinces, was used to arrive at a reasonable ratio of improvement to repair work.

Items included under public works, natural resources, and machinery and equipment by provincial governments were the same as taken under gross investment and maintenance expenditures by the Dominion Government (see page 112).

Explanation of Items 1 to 13 of Tables 18a-27a

Item 1—Streets, Highways, and Bridges.—Included in this group is the total outlay on the construction and maintenance of provincial main trunk and secondary highways, bridges, and special projects such as the Trans-Canada Highway, roads to national parks, mining roads and trails, and relief road work. While these special projects were partly financed by the Federal Government, the actual construction work was carried out by the provinces. The total expenditure, including Dominion contributions, has been classified as provincial public construction. Provincial grants-in-aid to municipalities for street and road improvements, on the other hand, have been excluded, these items being accounted for in investment outlay by municipal governments.

Item 2—Buildings and Grounds.—This group comprises the total provincial outlay on the construction, improvement, alteration, maintenance and repair of public buildings and grounds. Included are legislative and departmental buildings, court houses and jails, provincial hospitals, schools, farms, and other institutions.

Item 3—Watermains, Sewers, Dams and Reservoirs.—Expenditures included—moderate in amount—mainly relate to dams and reservoirs connected with water storage projects undertaken and maintained by several provincial governments in the interest of power development.

Item 4—Docks, Wharves, Rivers, Canals, Dredging, etc.—This classification is used here mainly for purposes of comparability with the Dominion Tables. Expendi-

tures in this field are mainly made by the Federal Government. Some expenditures are being made by provincial governments, mainly for docks, wharves and piers in British Columbia, Quebec and the Maritimes.

Item 5—Other.—This group comprises all other engineering construction by the provincial governments including the construction and maintenance of electric stations and transmission lines, ferries, drainage and irrigation. Certain development expenditures, such as the construction of observation towers in forests, have also been included in this group.

Item 6—Public Construction.—This item is the subtotal of items 1 to 5. It covers the total direct outlay (labour, materials, machinery and equipment) on construction carried out by provincial authorities either through contract work or on force account.

Item 7—Planning and Administrative Expenses.—On the basis of sampling a number of individual projects, supplementary expenditures for planning and supervisory cost (head offices expense only, since on-site supervision was included as part of the costs of the individual project) ranged from 3 to 15 per cent, with a mean of about 8 per cent. The latter proportion was used in estimating planning and administrative expenses.

Item 8—Public Works.—This item is the sum total of public construction and planning and administrative expenses.

Item 9—Natural Resources.—Expenditures on conservation and development of natural resources cover government services such as forest protection, game and fisheries patrols, surveys (topographical, hydrometric, geological and soil), development projects such as drainage and irrigation, mining roads and maintenance work of various kinds, such as camp-sites in provincial parks, repairs to beaver dams, etc. The criterion for compiling data was the consideration whether or not the expenditure contributed directly to the development or maintenance of natural resources (land, timber, mineral, water or wild life). Certain items which would be classed as development expenditures in a broader sense have been omitted, as for example expenditures for dairy herd improvement, weed control, and rural electrification. Further, training costs, such as courses for prospectors and schools for forest rangers, have been excluded, on the grounds that they are designed to improve human qualities (see concept and definition of public investment). As a result, expenditures on forest conservation and mineral development done under the Dominion-Provincial Youth Training Agreements were omitted.

A somewhat different technique to that applied to public construction was used to arrive at a distinction between new projects and maintenance expenditures connected with the development and conservation of natural resources. Items relating to ordinary government services of a continuing nature which, in general, are designed more for purposes of conservation than for development, as is the case with forest ranger service, game and fisheries patrols, were taken as outlay for maintenance. On the other hand, special projects which may add to the capital stock of resources such as reforestation and the construction of new fish hatcheries, or may contribute to the improvement of existing resources such as irrigation, or may facilitate the development of resources (geological exploration), have been

classified as new investment. One exception was made to the above classification in order to assure comparability among the three components comprising gross investment and maintenance. Certain construction expenditures and machinery and equipment items were listed under natural resources—a duplication which was eliminated in the total (see items 12 and 13). Some of the conservation projects listed as maintenance included new construction or new machinery and equipment items. For example, expenditures for forest protection services, listed as maintenance, included the construction of new rangers' cabins and the acquisition of new fire fighting equipment. Such items were listed as new under natural resources, to assure comparability as between the different series.

Item 10—Machinery and Equipment.—This group covers (a) machinery and equipment used in construction such as road scrapers and concrete mixers; (b) machinery and equipment used in conservation and development work such as fire fighting equipment; and (c) all other durable goods purchased by governments. They include some industrial machinery and equipment, mining machinery and equipment, electrical appliances, farm machinery, tractors and wagons, office machinery and equipment, furniture and fixtures, ships and boats, motor vehicles, aircraft, professional and scientific equipment, carpenters' and mechanics' tools, durable containers, and other durable producer goods of similar nature. In addition certain consumer durables, purchased on government account, such as motorcycles and household furnishings for public institutions, were included. For the latter group the determining criterion for selection was the durability of the item in question. Furnishings such as rugs and bedding, which could be used for longer than one year, were included while mops, brooms, brushes and similar goods which would wear out in the course of a year were omitted. The purchase of new equipment of all kinds was taken as new outlay while parts and repairs to machinery and equipment were taken as maintenance expenditures.

Item 11—Sub-Total.—This item is the sum total of expenditures on public works, natural resources, and machinery and equipment (items 8 to 10). It includes certain duplications which are eliminated in item 13.

Item 12—Duplications.—Since items 8 to 10 each represent the total expenditure for the respective categories, certain duplications have occurred: (a) some public works projects such as mining roads and trails and irrigation works have also been included with natural resources; (b) machinery and equipment used in construction was included both in the public works series and in the machinery and equipment series; and (c) machinery and equipment used in conservation and development work was included both in the natural resources series and machinery and equipment series. The figure shown in item 12 is the sum total of all duplications.

Item 13—Gross Investment and Maintenance.—By eliminating the duplications (item 12) from the sum of the three components (item 11), total public investment, including maintenance, is arrived at.

ESTIMATE OF GROSS INVESTMENT AND MAINTENANCE FOR YEARS NOT COVERED IN ORIGINAL COMPUTATION

Items 2, 6 and 10 of Table 15a

(a) Period 1926-1937.

An index for provincial public investment was computed based on public works expenditures, both on capital and current accounts, and on certain items listed under public domain and agriculture, indicative of provincial investment activity, taken from the reports of the Royal Commission on Dominion-Provincial Relations, Public Accounts Inquiry. This index, with 1930 as a base, was applied to provincial gross investment and maintenance and the estimated expenditures were compared with the actual totals computed for the years 1926, 1929, 1933 and 1937. The margin of error was less than four per cent in 1929, 1933 and 1937; for 1926 it amounted to 5.6 per cent. Thus the index computed appeared to be satisfactory for the purpose of interpolation for the years not covered.

Division of totals into new investment and replacement and repairs and maintenance were arrived at by interpolation of the ratios available for the years for which original computations were made.

(b) Period 1937-1941.

Since the data on which the index for the period 1926-1937 was computed were available only up to and including 1937, a new index had to be computed for estimating gross investment and maintenance for the years 1938 to 1940, not covered in the original computation. Expenditures on hard surfaced streets and highways, bridges and viaducts, culverts and embankments reported in the Construction Census rendered an index, which, with 1937 as a base, yielded an estimated total for gross investment and maintenance for 1941, about three per cent above the actual expenditure made. This index was then used for estimating expenditures for the years 1938-1940. A separation of new investment including replacement from repairs and maintenance was obtained by interpolation of the ratios available for 1937 and 1941.

Explanation of Items 1 to 5 of Tables 18c-27c.

Item 1.—Figures taken from item 13 of Tables 18a-27a.

Item 2.—All other government expenditures comprise outlay on public services and transfer payments. Data were obtained by subtracting gross investment from total public expenditure through government, capital and current accounts (item 3 less 1).

Item 3.—Total public expenditures through government, capital and current accounts, comprise all expenditures made by these governments irrespective of the source of funds employed. They are gross expenditures, obtained by adjusting upward net expenditures (item 5) for transfer payments (item 4).

Item 4.—Adjustment for inter-governmental transfer payments was obtained for the years 1933, 1937 and 1941 from Comparative Statistics of Public Finance, Dominion-Provincial Conference on Reconstruction, August, 1945. Figures for the years 1926, 1929 and 1930 were obtained from Report of the Royal Commission on Dominion-Provincial Relation, Public Accounts Inquiry. (For comments on comparability, see item 5.)

Item 5.—Total public expenditure by government, capital and current accounts for the years 1933, 1937 and 1941 was taken from Table 10 of Comparative Statistics of Public Finance, Dominion-Provincial Conference on Reconstruction, August, 1945. Figures for 1926, 1929 and 1930 comprise those items both on capital and current accounts taken from Report of the Royal Commission on Dominion-Provincial Relations, Public Accounts Inquiry, which were used in making up net expenditures for the use of the Dominion-Provincial Conference, August, 1945. Some divergencies in method of computation exist as noted in the Foreword to Comparative Statistics of Public Finance, prepared for the Dominion-Provincial Conference on Reconstruction, August, 1945. Since the differences were not considered large enough to affect considerably total expenditures made, the estimates obtained for 1926, 1929 and 1930 appear roughly comparable with the data shown for 1933, 1937 and 1941.

COMPUTATION OF GROSS INVESTMENT AND MAINTENANCE BY MUNICIPAL GOVERNMENTS

The primary sources of information on municipal gross investment (new and replacements) and repairs and maintenance outlay are the financial reports, issued annually by municipalities, provincial Departments of Municipal Affairs and of Education, school corporations and other public institutions. Since accounting and reporting procedures vary greatly for different municipalities and their financial statements do not always provide the statistics required, certain adjustments in compiling figures on municipal investment were necessary, based on samples of representative municipalities and additional information supplied by individual municipalities and provincial government departments. Where direct information was not available, estimates were prepared based on supplementary data, such as municipal bond issues by large cities and municipal reports on construction work performed submitted to the Construction Census Branch of the Dominion Bureau of Statistics.

Some of the municipal and provincial reports provide separate information on new investment (including replacement) and repairs and maintenance. In many cases, a distinction is being made only as between outlay on capital and current accounts. Since, however, new investment outlay is frequently charged to current account, expenditures on capital account could not be used as a satisfactory indication of investment outlay including new projects and replacements. The procedure adopted was to compile totals for municipal investment and repairs and maintenance, and to divide the total according to a ratio of new construction and major improvements to repairs and maintenance available from municipal returns made to the Construction Census Branch of the Dominion Bureau of Statistics.

Original computations were made for the years 1933, 1937 and 1941 with interpolation for intermittent years not covered. Estimates for the years 1926 to 1932 were based on secondary data. In arriving at totals for municipal investment for the years 1933, 1937, and 1941, the procedure, described in Schedule F, was adopted.

SCHEDULE F.—METHOD OF COMPUTING MUNICIPAL GROSS INVESTMENT AND MAINTENANCE

Item No.	Description
A	Highway expenditures on capital account.
B	Estimated expenditures for land and other non-construction items.
C	Expenditures on highway construction on capital account (Item A less B).
D	Highway expenditures on current account.
E	Estimated expenditures for snow clearing and administration.
F	Expenditures on highway construction on current account (Item D less E).
G	Total municipal expenditures on highway construction (Items C and F).
H	Expenditures on public buildings and other works on capital account.
I	Expenditures on public buildings and other works on current account.
J	Expenditures on public buildings and other works on capital and current accounts (Items H and I).
K	Public construction excluding provincial grants (Items G and J).
L	Provincial grants to municipalities for highway construction.
M	Total highway construction including provincial grants (Items G and L).
N	Total public construction (Items K and L).
O	Planning and administrative expenses.
P	Total public works (Items N and O).
Q	Machinery and equipment included in public works.
R	Machinery and equipment not included in public works.
S	Total expenditures for machinery and equipment (Items Q and R).
T	Total gross investment and maintenance (Items P and R).

Sources of Schedule F.

Item A.—Highway expenditures on capital accounts were taken from municipal reports, and from reports and information received from Provincial Departments of Municipal Affairs, and the Quebec Bureau of Statistics. Additional information was obtained from Reports of the Ontario Municipal Board and similar bodies in other provinces which exercise supervision over capital expenditures. Where information on actual capital expenditures was not available, amounts were obtained, as in Ontario, by using figures of authorization of capital expenditures and in Nova Scotia, from the record of bond sales (excluding refunding). Information from all known sources was used and the data submitted to Provincial Departments of Municipal Affairs for their consideration. This method of computation does not preclude the possibility of omission of some minor items.

Item B.—Expenditures for land and other non-construction items were estimated to amount to 5 per cent of highway expenditures on capital account. In some cases no outlays for land and other non-construction items were made while in others the proportion exceeded 10 per cent. A median of 5 per cent was indicated.

Item D.—Highway expenditures on current accounts were taken from municipal reports, from reports and information received from Provincial Departments of Municipal Affairs, and Quebec Bureau of Statistics. Where actual data were not available, estimates were based on sample studies of selected municipalities.

Item E.—Estimated expenditures for snow-clearing and administration were based on actual figures wherever available in municipal accounts and provincial reports. Where such information was incomplete, estimates were made based on sample studies of individual city reports.

Item H.—Municipal expenditures on public buildings and other works on capital account were taken from municipal reports, from reports and information received from Provincial Departments of Municipal Affairs and the Quebec Bureau of Statistics. Additional information was obtained from reports of School Boards and from the reports of Provincial Departments of Education. "Other works" include sewers, markets and ferries.

Item I.—Municipal expenditures on public buildings and other works on current account were based on individual city returns and provincial reports. Where no actual figures were available, estimates were made using sample studies for selected urban communities. In preparing these estimates a combination of two methods was used: (a) pro-rated expenditures where information on total outlay was available, and (b) per capita expenditures for different size groups of communities.

Item L.—Provincial grants to municipalities for highways were based on information obtained from provincial public accounts for the years ending nearest to December 31.

Item O.—Planning and administrative expenses were estimated to amount to 8 per cent of public construction. The estimate was based on sample studies of selected urban municipalities.

Item Q.—Expenditures on machinery and equipment included in public construction have been estimated on the basis of sampling representative municipalities. Expenditures include such outlay as road machinery, heating and plumbing equipment for buildings. In some instances, it was not possible to separate office equipment from other equipment used directly in carrying out public construction. In such cases, some non-construction items have been included under public construction, but the amounts involved are comparatively small.

Item R.—Expenditures on machinery and equipment not included in public construction have been estimated on the basis of sampling representative municipalities. Expenditures include such outlay as snow clearing, fire fighting and hospital equipment (where hospitals are under direct municipal control).

Item T.—The total includes new investment and replacements, and repairs and maintenance by municipal governments, certain organized districts and public institutions in Canada (excluding Yukon and Northwest Territories).

Explanation of Items 1 to 5 of Table 28c

Item 1.—Figures taken from item 9 of Table 28a.

Item 2.—All other government expenditures comprise outlay on public services and transfer payments. Data were obtained by subtracting gross investment and maintenance from total public expenditure through government, capital and current accounts (item 3 less 1).

Item 3.—Total public expenditure through government, capital and current accounts, comprise all expenditures made by these governments irrespective of the source of funds employed. They are gross expenditures, obtained by adjusting upward net expenditures (item 5) for transfer payments (item 4).

Item 4.—Adjustment for inter-governmental transfer payments was obtained for the years 1933, 1937 and 1941 from Comparative Statistics of Public Finance, Dominion-Provincial Conference on Reconstruction, August, 1945. For the years 1926 and 1930, data were taken from page 170, Book III of the Royal Commission on Dominion-Provincial Relations. No information was available for 1929. Since, however, there was little change in provincial grants to municipalities as between 1929 and 1930, the figure for the latter year was used for 1929.

Item 5.—Total public expenditure by government, capital and current accounts for the years 1933, 1937 and 1941, was taken from Table 10 of Comparative Statistics of Public Finance, Dominion-Provincial Conference on Reconstruction, August, 1945. Figures for the years 1926, 1929 and 1930 were estimated using the following method: (a) municipal expenditures on current account for the years 1926 and 1930 were taken from page 176, Book III, Report of the Royal Commission on Dominion-Provincial Relations; expenditures for 1929 were estimated on the basis of taxes levied by 27 major cities, using municipal expenditures on current account in 1930 as a base; (b) municipal expenditures on capital account were computed by running back expenditures made in 1933 on the basis of municipal bond issues by 27 major cities; (c) total municipal expenditure was arrived at by combining outlay on capital and current accounts.

ESTIMATE OF GROSS INVESTMENT AND MAINTENANCE FOR YEARS NOT COVERED IN ORIGINAL COMPUTATION

*Items 3, 7 and 11 of Table 15a and Items 1 to 3
of Table 28a*

(a) *Period 1926-1932*

Estimates of public investment outlay by municipalities in 1933, separated into expenditures on capital and current accounts, were used as a basis for running back a series for the preceding years. The expenditures on current account for sixteen cities for the years 1926-1933, obtained from Reports of the Citizens' Research Institute, Toronto, were used in estimating public investment on current account. Municipal bond issues by twenty-seven major cities (cities with population of 30,000 and over) obtained from "The Financial Post, Record of Prospectuses", published by the MacLean Publishing Company, Toronto, were used as a basis for estimating municipal public investment on capital account. As a check this series was run back on bond issues by the same sixteen municipalities which were used in estimating public investment on current account.

The trend of bond issues for sixteen and twenty-seven cities was almost the same, indicating to some degree the consistency of the material used as a trend of municipal capital outlay. Some difficulties, however, were encountered in the years 1928 and 1932 when the amounts of municipal bond issues were comparatively small and large, respectively. This was mainly due to the fact that some of the capital outlay made in 1928 was covered by bonds issued in 1929, while in 1932 a substantial amount of bonds were issued for the purpose of refunding. Since bond issues for the years 1928 and 1932 did not appear a satisfactory indication of the trend of public investment on capital account, estimates for these two years were arrived at by interpolation.

A provincial breakdown for the years 1926, 1929 and 1930 was obtained on the above basis for the Maritimes, Quebec and Ontario. Bond issues in the Prairie Provinces and British Columbia were not available in enough detail to provide a satisfactory indication of the trend for each of the provinces. The method adopted was to obtain municipal public investment for these four provinces by subtracting from the total for Canada expenditures by the remaining provinces. The figures thus arrived at were then divided according to the ratios available for 1937, which appeared the most representative year for a provincial breakdown of municipal investment.

Division of the totals into new investment and replacement and repairs and maintenance for the years 1926 to 1932 was based on the assumption that the appropriate ratios varied according to the business cycle, with larger proportions of the total outlay going into new and replacement projects in prosperous years than in depressed years. Over the business cycle the ratios were varied on the assumption (a) that the proportion of new investment and replacement to total in the peak of the 'twenties did not materially exceed the peak of the 'thirties when a number of new projects were undertaken as part of an extended municipal relief works program and (b) that the proportion of new investment and replacement to total was smaller in the early 'thirties than in the later 'thirties.

A separation of totals into expenditures for highways, roads and bridges and public buildings and other work for the period 1926 to 1932 was made by using the ratio available for 1937. For the three years for which original computations were prepared this ratio varied between 56.4 per cent in 1933 and 61.2 per cent in 1941, indicating a variation of less than 5 per cent of the aggregate. Because of the small variation of the ratio during 1933-1941 and the fact that the ratio for 1937 was very close to the median (58.3 per cent) the application of this ratio for the years 1926 to 1932 appeared to be satisfactory as an approximation.

(b) Period 1933-1941.

Municipal public investment and repairs and maintenance expenditures for the period 1933-1941 were estimated by interpolation, using total outlay for 1937 as a base. Total construction, both contract work and force account work, as reported by sixteen selected municipalities to the Construction Census Branch of the Dominion Bureau of Statistics were used as an indication of the trend. The year 1941 was used as a benchmark to check the accuracy of the trend thus established. On the basis of the sixteen cities' trend, the margin of error for 1941 appeared to be less than 1 per cent.

While the margin was probably somewhat larger for the years prior to 1941, the trend established appeared satisfactory for interpolation purposes. The only difficulty encountered was in 1936. Large capital outlay by one city (Winnipeg)—out of proportion with most of the other years—made it necessary to use interpolation for this year instead of the actual trend.

The classification of new investment and replacement, and repairs and maintenance for the years 1934-1941 was based on returns on new construction and major improvements and repairs and maintenance as reported by the above mentioned sixteen municipalities to the Construction Census Branch of the Dominion Bureau of Statistics. Since the Construction Census was only organized in 1934, it was necessary to prepare an independent estimate for 1933. In this year, the ratio of new investment and replacements to repairs and maintenance was assumed to be about equal to that shown for 1937. This assumption was supported by the fact that capital outlay for municipal public investment was about equal in both years.

SECTION 5

SUPPLEMENTARY TABLES

GROSS INVESTMENT AND REPAIRS AND MAINTENANCE, BY COMPONENTS, TABLE 31

Item 1—Total New Construction and Resource Development.—All utility and private construction expenditure is included. The amount added for direct government is total direct government investment less government investment in machinery and equipment.

Item 2—Flow of Producers' Durable Goods.—This item comes directly from Table 6a, Item 13.

Item 3—Change in Business Inventories.—The quantities entered are the value of the physical change. The item is from Table 7a, Item 5.

Item 4—Change in Farm Inventories.—Quantities entered are the value of the physical change. The item is obtained from Table 7a, Item 9.

Item 7—Repair and Maintenance Construction.—The entries include direct government expenditures on repair and maintenance on building and engineering construction and resource development, and private repair and maintenance to residential, industrial, commercial and institutional buildings.

Item 8—Producers' Durable Goods—Repair and Servicing.—This item includes the repair parts and servicing work, which are the sum of Items 14, 19, 20 and 21, Table 6a. The remainder of the repair parts, Table 6a, are covered in Items 9 and 10 of this table.

Item 9—Repairs and Maintenance—Agriculture, Woods Operations, Mining, etc.—For mining and woods operations both parts and labour are covered. Only repair parts of farm implements are included.

Item 10—Repairs and Maintenance—Public Utilities.—This includes both repair parts and labour. The item is taken from Table 14b, Item 3.

GROSS INVESTMENT, PRIVATE AND PUBLIC, TABLE 32

Private and public construction are set out by parallel classifications for comparative purposes.

Private Gross Investment

Item 1—Utility Construction.—This entry may be found in Table 14a, Item 5, for the six selected years. Other years were computed as explained in Section III.

Item 2—Commercial, Residential, Industrial, Institutional Construction.—Construction by woods operators, in mines, and construction materials used on farms are included as well as the items enumerated in the heading. The item is obtained as a residual by subtracting all other construction in Items 1, 7 and 8 of this table from Item 6, Table 5a.

Item 3—Flow of Producers' Durable Goods.—This item is the difference between the total gross investment in producers' durables and investment in producers' durables by governments and publicly-owned utilities.

Item 4—Change in Business and Farm Inventories.—This is a residual obtained by subtracting Item 10 of this table from Item 10, Table 7a.

Item 5—Net Balance of International Payments, Current Transactions.—This is obtained by subtracting Item 11 of this table from Item 20, Table 8a.

Public Gross Investment

Item 7—Public Utility Construction.—For the six selected years this is found in Table 12a, Item 6. For other years it was obtained as described in Section III of the notes.

Item 8—All Other Construction and Resource Development.—This item is obtained by removing direct government investment expenditure on machinery and equipment from total direct government investment expenditure.

Item 9—Flow of Producers' Durables.—These entries include direct government and publicly-owned utility expenditure on machinery and equipment.

Item 10—Change in Inventories.—Government holdings of grain are those given by the Canadian Wheat Board. Changes in inventories of other commodities are obtained by utilizing information from D.B.S. and from the Department of Munitions and Supply.

Inventories of Crown companies were collected directly by D.B.S. in the annual Census of Manufactures. Some inventories held by private companies were financed through working capital advances by the Canadian Government. The amounts of these advances were obtained from the Economics and Statistics Branch of the Department of Munitions and Supply. Of these advances 25 per cent in 1940 and 20 per cent in 1941 were estimated as representing cash and the remainder holdings of inventories. These inventories would include those bought by the companies, which would have been reported to D.B.S. and free issue which would not have been so reported.

An estimate of the amount of free issue was obtained by subtracting from the total inventories covered by working capital advances that part which it was estimated the companies had purchased. The latter amount

was obtained by assuming that the government-financed private inventories would bear the same ratio to total production as was the case for the Crown companies. The amount of free issue was relatively small in 1940 and 1941.

Item 11—Net Balance of International Payments, Current Transactions.—This item is the sum of four groups. Net flotations or retirements by governments of securities in other countries were obtained from the International Payments Branch, D.B.S. These include both direct and guaranteed issues, except prior to 1936 when guaranteed bonds of the railways are not covered. Changes in holdings of gold by government bodies were supplied by the Bank of Canada. Changes in foreign balances held by the Canadian Government were supplied by the Department of Finance and changes in holdings of foreign exchange were taken from the Bank of Canada Statistical Summary.

COMPARISON OF PRIVATE AND PUBLIC CONSTRUCTION AND REPAIRS AND MAINTENANCE, PURPOSE CLASSIFICATION, TABLE 33A

This table sets out by types, and by private and public, the distribution of construction outlay.

Item 1—Privately-Owned Utility Construction.—See Item 5, Table 13a.

Item 2—All Other Private Construction.—See Item 2, Table 32.

Item 5—Construction by Government.—For the six selected years this item comes from Table 16a, Item 2; the other years were obtained by interpolation as described in Section 4 of the notes.

Item 12—Direct Government Repairs and Maintenance.—For the six selected years this came from Item 3, Table 16b; other years were obtained by interpolation.

SECTION 6

APPRAISAL OF THE MEANING AND ACCURACY OF THE ESTIMATES

The estimate of gross investment made herein may not correspond exactly to that which would be used in a national income and expenditure study. At present, computation of national income and gross national expenditure relies heavily on information obtained from business accounts. It is the practice of many companies to charge to operating expenses outlays that actually involve acquisition of capital. In this study the division between gross investment and maintenance corresponds closely to that used in business accounting practice for information taken from company accounts or obtained by direct correspondence. (Note the exception in the case of railways, Section 3, Part IV). The remainder of the expenditure is divided according to whether new or replacement capital facilities were acquired, or only repairs necessary to maintain the efficient upkeep and operation of the plant or equipment.

An appraisal of the accuracy of the estimates involves both the nature of the source data and the way in which they were used. To do this it is convenient to deal with the various estimates by groups in which the same techniques were used.

(1) *Direct Government Investment*

The basic data for the estimate of direct government investment were obtained, in the main, directly from the public accounts for the six selected years on which most of the government tables are based. Selection of items was done by a detailed examination of the reports, in which great detail is given. The main point of arbitrariness arises in the marginal cases in which it was determined whether an item should be included in new investment, repairs and maintenance or not at all: this was a matter of personal judgment. Interpolations for other years are, of course, less accurate than the original compilations but it is felt the margin of error is small.

The addition of direct government construction expenditures, which are for fiscal years, to private construction expenditures, which are for a calendar year, leaves room for some discrepancy. As little construction work is undertaken in the wintertime it is believed that except in 1940 and 1941 the expenditures for the fiscal year correspond fairly closely to the calendar year. Federal government plant and defence construction in the fiscal year 1941-42 exceeded that for the calendar year by approximately \$17 million.

(2) *Public Utilities*

The estimates for both the publicly-owned and privately-owned utilities for the six selected years, are based largely either on direct correspondence or on company accounts; in cases where coverage was extended on the basis of the proportion of revenue of covered companies to revenue of all companies, the covered portion varied from more than seventy-five per cent of the whole for electric utilities to almost complete coverage for municipal electric railways. A check of the estimate of outlay of electric utilities and telephones made in this study with that in the Capital Expenditure Survey in 1941 showed a negligible difference.

(3) *Private Building Construction*

The possible margin of error in the estimates of private building construction depends to quite an extent on the validity of the assumptions:

- (a) that the proportion of unfinished materials included with the finished construction materials, obtained by the supply method, does not vary substantially from year to year.
- (b) that trade margins and freight, as a proportion of cost of materials, would not vary substantially over the entire period,
- (c) that the changes in the ratio of materials-used to value of work performed are reasonably well reflected in information obtained in the Census of Construction, and that this information provides a basis for projecting the ratio backwards to 1926, and
- (d) that the data for 1941 were accurate.

Although an attempt was made to eliminate all unfinished products from figures of production of building materials, it could not be done completely. There is reason to believe, however, that the proportion of "unfinished" would not vary substantially.

The validity of the second assumption may be questioned somewhat more, as it is rather probable that freight costs, in particular, are a higher proportion of final cost of material when prices are low than when

they are high. An error of this kind would be magnified in obtaining gross value of work performed according to the proportion that materials-used bear to value of work performed. The information that would have allowed a correction in changes in freight charges and margins was much too scanty to be used.

With respect to the third assumption, Kuznets' material and the information obtained from the Census of Construction seemed to indicate that material costs are a slightly lower proportion of building construction when the volume of construction is low than when it is high. This phenomenon can be explained by the greater prevalence of repair work, which uses smaller proportions of materials, in years when construction activity is depressed. An examination of the trend of costs of building materials and labour costs also corroborate the finding.

As 1941 was a decennial census year, the available data to provide an estimate of construction in 1941 are considered fairly complete. Therefore, it should serve as a reasonably good benchmark.

The division between new and repair and maintenance is felt satisfactory from the viewpoint of separating building construction of a truly capital nature from repair maintenance work, but it may not correspond to company accounting practices. This method was used only to obtain the estimate of total building construction. When total building construction is broken into parts the industrial, commercial and residential is left as a residual and hence contains the sum of the errors of estimate of the other parts; these errors may or may not cancel out.

(4) *Machinery and Equipment*

A check of the industrial machinery, estimated by the supply method, with the Capital Expenditure Survey estimates obtained in 1941, shows, for that year, that the margin of error would not exceed five per cent and was probably substantially smaller. (Exact comparison is not possible as items do not correspond entirely). The railway rolling stock obtained by the supply method corresponds more closely with direct estimates based mainly on correspondence with the C.N.R. and C.P.R. for the six selected years. Hence, it is felt that all the machinery items are reasonably satisfactory. Much more difficulty is encountered in making an appraisal of the remainder of the items which appear in the equipment. It should not be expected that the totals would contain much more error than the other items discussed above, but the division between new and repair parts is much less apt to conform with accounting practice. It is rather probable that accounting procedures would apportion more to repair and maintenance account and less to capital account than is done in this study.

(5) *Changes in Inventories*

Changes in book values of manufacturing, mining and utility inventories are as accurate as the direct reports from which the data are obtained; trade inventory data are fairly satisfactory as far back as 1930, but may be subject to substantial error before that time owing to use of a constant sales-inventory ratio as a method of calculation. Inventories of grain in commercial channels supplied by grain merchants, are accurate; those of grain and livestock on farms are subject to the errors which come from using returns of

questionnaires, which are sent in by only a sample of farmers and can be checked with a complete account for all Canada only once every ten years. The method of adjusting the July 31st figures of farm grain to year-end figures gives a higher valuation of total inventories than should actually be the case, as allowance is not made for grain fed from July 31st to the end of the year. Except for years like 1931 to 1933 when the amount of grain fed on farms increased substantially owing to low grain prices, the *changes* obtained by this method would not be greatly affected by the adjustment.

The accuracy of the estimates of the value of the physical change in inventories is more difficult to determine. A major weakness lies in the absence of an index of prices of manufacturers inventories which are the largest group; use of the index of wholesale prices is not an entirely satisfactory substitute. The greatest margin of error probably enters into revaluation for 1930 and 1938. Grain and livestock changes are based on physical quantities valued at current prices.

(6) *Net Balance of International Transactions, Current Account*

The reader may determine for himself the accuracy of these estimates by consulting the sources. It might be pointed out that the estimates have recently been somewhat improved since the outbreak of war owing to information acquired in the operations of the Foreign Exchange Control Board.

(7) *Other*

The above groups contain by far the major items in gross investment. The smaller remaining items are subject to a wider range of error.

The information on mines in the 1940 questionnaire of D.B.S. and in the Capital Expenditure Survey in 1941 should provide fairly accurate figures for those years. The series obtained in the 1940 questionnaire had many weaknesses in that it included a conglomeration of construction costs and machinery and equipment outlay, part of which might have been charged to capital account and part to operating costs. Since the information was all collected at one time, the series can probably be expected to be consistent for the period covered.

However, the method of extending coverage excluded non-producing, non-reporting mines and to the extent that unreported non-producers were making expenditures the figures are in error. This probably affects the period prior to 1930 and the period after 1934.

The series on woods operations is extremely arbitrary but the amounts involved are less than 15 million dollars in all years. The agricultural building materials should be fairly close in 1941; the series, however, is somewhat arbitrary. Agricultural building materials involved about 30 million dollars in 1940 and slightly larger amounts in the late 1920's.

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